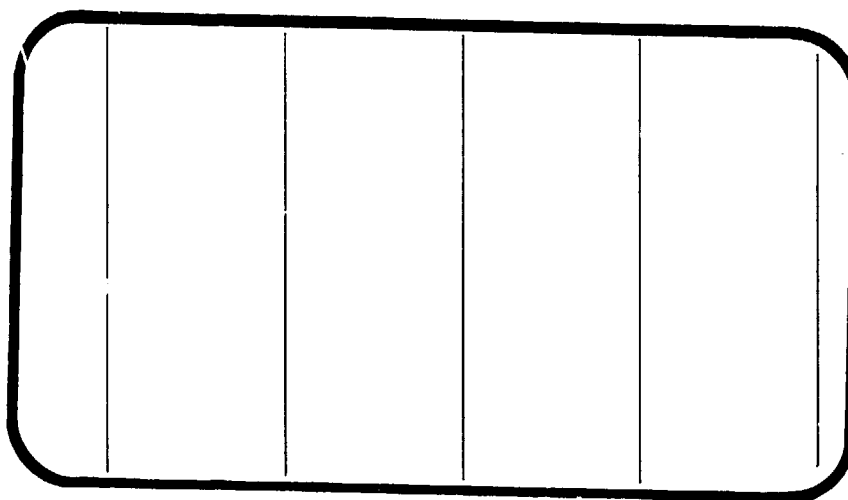




# NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

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(NASA-CR-134444) AIRLOADS INVESTIGATION OF  
AN 0.030-SCALE MODEL OF THE SPACE SHUTTLE  
VEHICLE 140A/B LAUNCH CONFIGURATION (MODEL  
47-JTS) IN THE ARC 11 FOOT UNITARY PLAN WIND  
TUNNEL FOR MACH RANGE 0.6 TO 1.4 (IA11A),

N75-19337

Unclass  
14580

G3/18

SPACE SHUTTLE

AEROTHERMODYNAMIC DATA REPORT

JOHNSON SPACE CENTER

HOUSTON, TEXAS

DATA MANAGEMENT services

SPACE DIVISION



CHRYSLER  
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VOLUME 2 OF 11

AIRLOADS INVESTIGATION OF AN 0.030-SCALE MODEL  
OF THE SPACE SHUTTLE VEHICLE  
140A/B LAUNCH CONFIGURATION (MODEL 47-OTS)  
IN THE ARC 11-FOOT UNITARY  
PLAN WIND TUNNEL FOR MACH RANGE 0.6 TO 1.4 (IA14A)

by

R. L. Gillins  
Rockwell International Space Division

Prepared under NASA Contract Number NAS9-13247

by

Data Management Services  
Chrysler Corporation Space Division

for

Engineering Analysis Division

Johnson Space Center  
National Aeronautics and Space Administration  
Houston, Texas

WIND TUNNEL SPECIFICS:

Test Number: ARC 11-716  
NASA Series No.: IA14A  
Model Number: 47-OTS  
Test Dates: 4 through 13 September 1973

FACILITY COORDINATOR:

Stuart L. Treon  
Mail Stop 227-5  
Ames Research Center  
Moffett Field, Calif. 94035

Phone: (415) 965-5850

PROJECT ENGINEERS:

R. L. Gillins,  
V. Esparza, and W. Embury  
Mail Code AC07  
Rockwell Int'l. Space Div.  
12214 Lakewood Blvd.  
Downey, Calif. 90421

Phone: (213) 922-4898

AERODYNAMIC ANALYSIS ENGINEERS:

I. M. Jaremenko  
H. G. Webb  
Mail Code AC07  
Rockwell Int'l. Space Div.  
12214 Lakewood Blvd.  
Downey, Calif. 90421

Phone: (213) 922-2703

DATA MANAGEMENT SERVICES:

Prepared by: Liaison--D. A. Sarver  
Operations--M. M. Mann, J. T. Daviet

Reviewed by: D. E. Poucher, J. L. Glynn *js.*

Approved: *N. D. Kemp*  
N. D. Kemp, Manager  
Data Management Services

Concurrence: *J. B. Swider*  
J. B. Swider, Manager  
Flight Technology Branch

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PLAN WIND TUNNEL FOR MACH RANGE 0.6 TO 1.4 (IA14A)  
VOLUME 2

By R. L. Gillins, Rockwell International Space Division

ABSTRACT

This report presents results of tests conducted on an 0.030-scale launch configuration model of the Space Shuttle Vehicle 140A/B in the NASA/ARC 11-Foot Unitary Plan Wind Tunnel. Aerodynamic loads data were obtained at Mach numbers from 0.6 to 1.4.

Surface pressure distributions were obtained simultaneously with six-component stability and control force data on the complete launch configuration. The configuration consisted of the orbiter, an external tank, two solid rocket boosters, and associated intercomponent attach hardware. Angles of attack and sideslip from -10 degrees to +10 degrees were investigated. The tests, designated IA14A, were conducted from 4 September 1973 through 13 September 1973.



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## PLOTTED COEFFICIENT SCHEDULE:

- |                   |                    |
|-------------------|--------------------|
| A) CP versus X/LB | D) CP versus X/CW  |
| B) CP versus X/LT | E) CP versus X/CV  |
| C) CP versus X/LS | F) CP versus BETA0 |

# INDEX OF DATA FIGURES (Continued)

The plotted pressure data, presented as a function of angle of side-slip, angle of attack, and geometric parameters, is representative of the tabulated data presented in Volumes 3 through 11. A summary of the pressure data plotted is given below.

<u>DATASET PLOTTED</u>	<u>COMPONENT</u>	<u>MACH</u>	<u>PHI SCHED.</u>	<u>BETA SCHED.</u>	<u>ALPHA SCHED.</u>	<u>GEOMETRIC PARAMETER SCHEDULES</u>
RB1B33	ORB. FUSELAGE	1.25	(A)	(A)	(A)	
RB1B34	ORB. FUSELAGE	0.6	(A)	(B)	(B)	
RB1B38	ORB. FUSELAGE	1.05	(A)	(B)	(B)	
RB1B40	ORB. FUSELAGE	1.4	(A)	(B)	(B)	
RB1T33	EXTERNAL TANK	1.25	(B)	(A)	(A)	
RB1T34	EXTERNAL TANK	0.6	(B)	(B)	(B)	
RB1T38	EXTERNAL TANK	1.05	(B)	(B)	(B)	
RB1T40	EXTERNAL TANK	1.4	(B)	(B)	(B)	
RB1S33	SRM BOOSTER	1.25	(C)	(A)	(A)	
RB1S34	SRM BOOSTER	0.6	(C)	(B)	(B)	
RB1S38	SRM BOOSTER	1.05	(C)	(B)	(B)	
RB1S40	SRM BOOSTER	1.4	(C)	(B)	(B)	
RB1U33	UPPER WING SURF.	1.25	-	(A)	(A)	Y/BW (A)
RB1L33	LOWER WING SURF.					
RB1U34	UPPER WING SURF.	0.6	-	(C)	(C)	Y/BW (A)
RB1L34	LOWER WING SURF.					
RB1U38	UPPER WING SURF.	1.05	-	(C)	(C)	Y/BW (A)
RB1L38	LOWER WING SURF.					
RB1U40	UPPER WING SURF.	1.4	-	(C)	(C)	Y/BW (A)
RB1L40	LOWER WING SURF.					
RB1V33	VERT. TAIL LT. SURF.	1.25	-	(A)	(A)	Z/BV (A)
RB1R33	VERT. TAIL RT. SURF.					
RB1V34	VERT. TAIL LT. SURF.	0.6	-	(B)	(B)	Z/BV (A)
RB1R34	VERT. TAIL RT. SURF.					
RB1V38	VERT. TAIL LT. SURF.	1.05	-	(B)	(B)	Z/BV (A)
RB1R38	VERT. TAIL RT. SURF.					

# INDEX OF DATA FIGURES (Continued)

<u>DATASET PLOTTED</u>	<u>COMPONENT</u>	<u>MACH</u>	<u>PHI SCHED.</u>	<u>BETA SCHED.</u>	<u>ALPHA SCHED.</u>	<u>GEOMETRIC PARAMETER SCHEDULES</u>
RB1V40	VERT. TAIL LT. SURF.	1.4	-	(B)	(B)	Z/BV (A)
RB1R40	VERT. TAIL RT. SURF.					
RB1C33	ORBITER BASE	1.25	(D)	(D)	(A)	TAP NO. (A)
RB1E33	OMS NOZZLE	1.25	(E)	(D)	(A)	X/LNM (A)
RB1X33	SRM BASE	1.25	(C)	(D)	(A)	X/LS (A)
RB1Y33	E.T. BASE	1.25	(D)	(D)	(A)	TAP NO. (B)
RB1133	ORB. ATTACH POINTS	1.25	-	(D)	(A)	X/BW, X/LB SEE PLOTS
RB1233	E.T. ATTACH POINTS	1.25	SEE PLOTS	(D)	(A)	SEE PLOTS
RB1333	E.T. BASE RAKE	1.25	(F)	(D)	(A)	TAP NO. (C)

## PARAMETER SCHEDULES

### ALPHA

SCHEDULES (A) -8, -4, 0, 4, 8  
(B) -8, 0, 8  
(C) -8, 0, 4, 8

### BETA

(A) -8, -4, -2, 0, 4, 8  
(B) -8, 0, 4, 8  
(C) -8, 0, 8  
(D) 0

### PHI

(A) 0, 20, 40, 55, 70, 90, 120, 135, 150, 165, 180  
(B) 0, 30, 60, 90, 120, 135, 150, 165, 180, 270  
(C) 0, 45, 90, 135, 180, 225, 270, 315  
(D) 0  
(E) 135, 180, 225  
(F) 180

# INDEX OF DATA FIGURES (Concluded)

Y/BW	(A)	.299, .364, .427, .534, .673, .780, .887
Z/BV	(A)	.158, .316, .600, .840, .925
X/LNM	(A)	.2, .4
X/LS	(A)	.948, .979, .993
X/LB	(A)	.126, .133, .811, .819, .827, .835, .850, .858
TAP NO.	(A)	1, 2, 3, 4, 5
	(B)	501, 502, 801, 802, 803, 804
	(C)	790, 789, 782, 787

## INTRODUCTION

The 0.030-scale aero loads Space Shuttle Model was tested in the ARC Unitary Plan Wind Tunnels as follows:

IA14A	4 thru 13 Sept. 1973
IA14B	17 thru 19 Sept. 1973
OA22A	13 thru 14 Sept. 1973
OA22B	19 thru 20 Sept. 1973

For tests IA14B, OA22A, and OA22B, see reference 34, 35, and 36, respectively.

The testing was conducted in the 11-foot and the 9- by 7-foot tunnels of the ARC Unitary Plan Wind Tunnels. The IA14A/B tests were for the launch configurations at Mach numbers from 0.6 to 2.2. The OA22A/B tests were for the orbiter alone configuration at Mach numbers from 0.6 to 2.2. The effects of control surface deflections were also investigated in tests OA22A/B.

This report for test IA14A consists of one volume of force data and ten volumes of pressure data for a total of eleven volumes arrayed in the following manner:

Volume No.	Contents	Page
1.	IA14A force data	
2.	IA14A plotted pressure data	
3.	IA14A tabulated pressure data	
	(a) Orbiter fuselage (B)	1-725
	(b) Orbiter base (C)	726-918



Volume No.	Contents	Page
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7.	IA14A tabulated pressure data	
	(a) Left vertical tail surface (V)	3298-3603
	(b) Right vertical tail surface (R)	3604-3909
8.	IA14A tabulated pressure data	
	(a) SRM booster (S)	3910-4444
9.	IA14A tabulated pressure data	
	(a) External tank (T)	4445-5031
	(b) SRM nozzle (X)	5032-5161
10.	IA14A tabulated pressure data	
	(a) External tank base & SRM booster base (Y)	5162-5354
	(b) Orbiter attach points (1)	5355-5941
11.	IA14A tabulated pressure data	
	(a) External tank attach points (2)	5942-6313
	(b) External tank base rake (3)	6314-6412

# NOMENCLATURE General

<u>SYMBOL</u>	<u>SADGAC SYMBOL</u>	<u>DEFINITION</u>
$a$		speed of sound; m/sec, ft/sec
$C_p$	CP	pressure coefficient; $(p_1 - p_\infty)/q$
$M$	MACH	Mach number; $V/a$
$p$		pressure; $N/m^2$ , psf
$q$	$Q(NSM)$ $Q(PSF)$	dynamic pressure; $1/2\rho V^2$ , $N/m^2$ , psf
$Re/L$	Re/L	unit Reynolds number; per m, per ft
$V$		velocity; m/sec, ft/sec
$\alpha$	ALPHA	angle of attack, degrees
$\beta$	BETA	angle of sideslip, degrees
$\psi$	PSI	angle of yaw, degrees
$\phi$	PHI	angle of roll, degrees
$\rho$		mass density; $kg/m^3$ , slugs/ft <sup>3</sup>

## Reference & C.G. Definitions

$A_b$		base area; $m^2$ , $ft^2$
$b$	BREF	reference span; m, ft
$C.G.$		center of gravity
$\bar{c}$		reference length or wing mean aerodynamic chord; m, ft
$S$	SREF	wing area or reference area; $m^2$ , $ft^2$
	MREF	moment reference point
	XMREF	moment reference point on X axis
	YMREF	moment reference point on Y axis
	ZMREF	moment reference point on Z axis

## SUBSCRIPTS

$b$	base
$l$	local
$s$	static conditions
$t$	total conditions
$\infty$	free stream

# NOMENCLATURE (Continued)

## Body-Axis System

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
$C_N$	CN	normal-force coefficient; $\frac{\text{normal force}}{qS}$
$C_A$	CA	axial-force coefficient; $\frac{\text{axial force}}{qS}$
$C_Y$	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
$C_{A_b}$	CAB	base-force coefficient; $\frac{\text{base force}}{qS}$ $-A_b(p_b - p_\infty)/qS$
$C_{A_f}$	CAF	forebody axial force coefficient, $C_A - C_{A_b}$
$C_m$	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS L_{REF}}$
$C_n$	CYN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qS b}$
$C_l$	CBL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qS b}$

## Stability-Axis System

$C_L$	CL	lift coefficient; $\frac{\text{lift}}{qS}$
$C_D$	CD	drag coefficient; $\frac{\text{drag}}{qS}$
$C_{D_b}$	CDB	base-drag coefficient; $\frac{\text{base drag}}{qS}$
$C_{D_f}$	CDF	forebody drag coefficient; $C_D - C_{D_b}$
$C_Y$	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
$C_m$	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS L_{REF}}$
$C_n$	CLN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qS b}$
$C_l$	CLL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qS b}$
L/D	L/D	lift-to-drag ratio; $C_L/C_D$

NOMENCLATURE (Continued)  
Additions To Standard List

<u>Symbol</u>	<u>SADSAC Symbol</u>	<u>Definition</u>
$A_{( )}$		model base area, subscript is base orifice number and identifies location
$C_{A_b}$	CAB	model base axial-force coefficient
$C_{p_{( )}}$		model static pressure coefficient, subscript is orifice number, $[p_{( )} - p_{\infty}]/q$
$C_{AU}$	CA	axial-force coefficient, unadjusted
$C_{AF}$	CAF	forebody axial-force coefficient, $C_{AU}$ adjusted for base terms
ET		external tank
IV		integrated vehicle, consists of orbiter, external tank, and two solid rocket motors
$l_{REF}$	LREF	reference length, inches
MRC		moment reference center
OMS		orbital maneuvering system
$\delta_e$	ELEVON	elevon, surface deflection angle, positive deflection trailing edge down, degrees
$\delta_f$	BDFLAP	orbiter body flap deflection angle, positive deflection angle is trailing edge down, degrees
$\delta_R$	RUDDER	rudder, surface deflection angle, positive deflection trailing edge to the left, degrees
$\delta_{SB}$	SPDBRK	speed brake deflection angle, left split rudder trailing edge left and right split rudder trailing edge right, $\delta_{SB} = (\delta_{RL} + \delta_{RR})/2$ , positive deflection, degrees
$i_0$	ORBINC	incidence angle between the orbiter and external tank, $i_0 = \alpha_0 - \alpha_T$ , degrees

# NOMENCLATURE (Continued)

$\beta_T$	BETAT	angle of sideslip of external tank, degrees
$\alpha_T$	ALPHAT	angle of attack of external tank, degrees
$l_B$	LB	length of orbiter body, in
$l_T$	LT	length of external tank, in
$l_S$	LS	length of SRM booster, in
$l_{NM}$	LNМ	length of OMS nozzle, positive direction forward of exit plane, in
$l_{NP}$	LNP	length of MPS nozzle, positive direction forward of exit plane, in
$b/2$	BW	wing semi-span, in
$b_v$	BV	vertical tail span, in
$x$	X	distance from component nose, in
$y$	Y	lateral distance from centerline, in
$z$	Z	vertical distance measured from W.L. 500 (vertical tail reference root chord), in
$c_w$	CW	local wing chord, in
$c_v$	CV	local vertical tail chord, in
$x/l_B$	X/LB	longitudinal position/orbiter body length
$x/l_T$	X/LT	longitudinal position/external tank length
$x/l_S$	X/LS	longitudinal position/booster length
$x/l_{NM}$	X/LNM	longitudinal position/OMS nozzle length

# NOMENCLATURE (Concluded)

$x/l_{NP}$	X/LNP	longitudinal position/MPS nozzle length
$x/c_w$	X/CW	local chordwise position/local wing chord length
$x/c_v$	X/CV	local chordwise position/local vertical tail chord length.
$\eta$	Y/BW	local spanwise position/wing semi-span
$\eta_v$	Z/BV	local spanwise position/vertical tail span
$x_{CP}/l$	XCP/L	center of pressure distance from MRC, expressed as a fraction of body length
$\beta_0$	BETA0	angle of sideslip of orbiter
$\alpha_0$	ALPHA0	angle of attack of orbiter

## CONFIGURATIONS INVESTIGATED

The 0.030-scale Aero Loads Model, 47-OTS, was configured after the Shuttle Vehicle MCR 0200 Baseline R1, as defined in drawing number VL70-000088B. The orbiter configuration was a combination of the VL70-000140A orbiter and a VL70-000140B wing and midbody, from which the 140A/B designation was derived. The basic launch configuration consisted of the orbiter, an external tank with simulated fuel and vent lines, and two solid rocket boosters, designated  $O_1$   $T_{12}$   $S_{12}$   $N_{25}$ .

Three launch configurations were tested. One was the basic configuration described above mounted on a dual balance and sting arrangement, illustrated in figure 2d. A second contained attach hardware, designated  $AT_{10}$ , mating the orbiter with the external tank and mounted on a single sting and balance in the orbiter, illustrated in figure 2b. The third utilized a similar attach hardware configuration, designated  $AT_{11}$ , which was attached to the orbiter but not to the external tank and was mounted on the same dual sting and balance arrangement as the basic configuration (figure 2c). In all three configurations, the SRB-to-ET attach hardware was simulated at the forward attach location but not at the aft attach location. Model and component general arrangements are shown in figures 2e through 2o.

Component	Description
$O_1$	140A/B orbiter minus the main propulsion system nozzles
$T_{12}$	324-inch diameter external tank with ogive nose and external fuel and vent lines
$S_{12}$	142.3-inch diameter solid rocket boosters

N <sub>25</sub>	Nozzles for S <sub>12</sub> boosters
AT <sub>10</sub>	Orbiter-to-ET attach hardware, fixed to both vehicles
AT <sub>11</sub>	Orbiter-to-ET attach hardware, fixed to orbiter only
LV	O <sub>1</sub> T <sub>12</sub> S <sub>12</sub> N <sub>25</sub>
LVA	O <sub>1</sub> T <sub>12</sub> S <sub>12</sub> N <sub>25</sub> AT <sub>10</sub>
LVA <sup>P</sup>	O <sub>1</sub> T <sub>12</sub> S <sub>12</sub> N <sub>25</sub> AT <sub>11</sub>

The orbiter O<sub>1</sub>, consisted of the following components:

B<sub>26</sub> C<sub>9</sub> F<sub>8</sub> M<sub>7</sub> N<sub>28</sub> V<sub>8</sub> R<sub>5</sub> W<sub>116</sub> E<sub>26</sub>.

B <sub>26</sub>	Double delta wing fuselage, 140A/B
C <sub>9</sub>	Canopy, 140A
F <sub>8</sub>	Body flap, 140A
M <sub>7</sub>	OMS pods, 140A
N <sub>28</sub>	OMS nozzles, 140A
V <sub>8</sub>	Vertical tail, 140A
R <sub>5</sub>	Rudder, 140A
W <sub>116</sub>	Double delta wing, 140B
E <sub>26</sub>	Elevons, 140B

Parametric investigations were limited to angles of attack and side-slip with all orbiter control surfaces at 0° deflection.



## INSTRUMENTATION DESCRIPTION

The left side of the orbiter and the external tank and the left hand SRB were extensively instrumented with pressure orifices for measurement of surface static pressure distributions. Additionally, there were clusters of orifices around inter-component attach structure locations on the right hand side of the orbiter and external tank. The orbiter contained 471 operational orifices, of which 83 were clustered around attach structure. The external tank contained 270 operational orifices, of which 127 were clustered around attach structure. The SRB contained 124 operational orifices. A three-tube total pressure rake was installed in the opening between the orbiter and external tank. Tables and sketches defining orifice locations are included in this report. All model pressures were measured by model mounted Scanivalve, Inc., S-type scanivalve modules - twelve in the orbiter, seven in the external tank, and five in the SRB.

Force instrumentation consisted of a six-component internal force balance in both the orbiter and external tank for the LV and LVAP configurations, and a single six-component internal force balance in the orbiter for the attached LVA configuration.

## TEST FACILITY DESCRIPTION

The tests were conducted in the Ames 11- by 11-Foot Transonic Wind Tunnel which is a variable density, closed return, continuous flow type. This tunnel has an adjustable nozzle (two flexible walls) and a slotted test section to permit transonic testing over a Mach number range continuously variable from 0.4 to 1.4.

# DATA REDUCTION

Data were reduced to coefficient form about body axes using the following reference constants:

$S_{REF} = 2.421 \text{ ft}^2$	reference area for force and moment coefficients
$l_{REF} = 38.709 \text{ in}$	reference length for moment coefficients
$A_1 = 0.07670 \text{ ft}^2$	Orbiter sting cavity
$A_2 = 0.21340 \text{ ft}^2$	Orbiter heat shield base
$A_3 = 0.08560 \text{ ft}^2$	Orbiter OMS base (2)
$A_4 = (\text{see table below})$	Orbiter speed brake base
$A_{501} = 0.07266 \text{ ft}^2$	Tank sting cavity
$A_{502} = 0.44264 \text{ ft}^2$	Tank base
$A_{801} = 0.19600 \text{ ft}^2$	SRM nozzle base (2)
$A_{802} = 0.16590 \text{ ft}^2$	SRM skirt base (2)
$\delta_{SB} =$	$A_4 =$
0 deg	0 ft <sup>2</sup>
14.92	0.02327
24.92	0.03866
34.92	0.05370
54.92	0.08252
84.92	0.12083
$X_{MRP} = 0 \text{ in}$	
$Y_{MRP} = 0 \text{ in}$	
$Z_{MRP} = 9.99 \text{ in}$	

The incidence angle between the orbiter and the external tank is equal to zero for angle of attack and angle of sideslip. Therefore, the angle of attack, ALPHA, used in the force plots is equal to ALPHA0. Also the angle of sideslip, BETA, used in the force plots is equal to BETA0.

The force and moment data recorded by the orbiter balance for configuration LV and LVAP are identified as RB10XX datasets. Force and moment data recorded by the tank balance for configuration LV and LVAP and by the orbiter balance for LVA (composite) are identified by RB11XX.

The pressure data were recorded for each component. The fourth character in each dataset identifier (i.e. RB1BXX, B for fuselage) represents the individual component. The following list indicates the symbol for each component.

SYMBOL	COMPONENT
B	Orbiter fuselage
C	Orbiter base
E	OMS nozzle
F	Body flap
M	OMS pod outside
L	Lower wing surface
U	Upper wing surface
R	Right vertical tail surface
V	Left vertical tail surface
S	SRM booster
T	External tank
X	SRM nozzle

## SYMBOL

## COMPONENT

Y	External tank base & SRM booster base
1	Orbiter attach points
2	External tank attach points
3	External tank base rake

## REFERENCES

1. Orbiter - Lines and Configuration Control Drawings
2. VL70-000140A, Orbiter Configuration Control Drawing MCR 0200 Baseline
3. VL70-000143A, Lines Control, Vehicle 4 Forward Body - Cabin - Canopy MCR 0200 Baseline
4. VL70-000200, Lines Control, Midbody - Wing - Boot Fairing MCR 200 R3 dated 7-2-73
5. VL70-000145, Lines Control - Aft Body - OMS/RCS Pods, MCR 0200 - R1 baseline
6. VL70-000146A, Lines Control (Vehicle 4) Vertical Tail MCR 0200 Baseline
7. External Oxygen Hydrogen Tank (EOHT) - Lines and Configuration Control Drawings
8. VL78-000041B, External Tank - Configuration Control MCR 0200 Baseline R2
9. VL78-000024A, Structural Assy - External Tank MCR 0200 R2
10. VL78-000031A, Thermal Protection - External Tank, MCR 0200 Baseline
11. Solid Rocket Boosters (SRB) - Lines and Configuration Control Drawings
12. VL77-000036A, SRB Configuration Control MCR 0200 R1
13. VL77-000041, SRB Booster Assy, MCR 0200 R1
14. Integrated Vehicle - Lines and Configuration Control Drawings
15. VL72-000088A, Shuttle Configuration MCR 0200 Baseline R1
16. VL72-000089, SRB-ET-Orbiter Interface Disconnects MCR 0200 Baseline
17. VL72-000075, External Tank to SRB Attach Interface MCR 0074 Baseline
18. Aero Loads Model 47-OTS - Model Fabrication, Assembly and Installation Drawings

19. SS-A00119, Orbiter Assy - .030 Scale Pressure/Loads Model (140A/B Lines)
20. SS-A00120, Assy & Details - EOHT - .030 Scale Pressure/Loads Model (140A Lines)
21. SS-A00121, Orbiter/EOHT Attachments .030 Scale Pressure/Loads Model (140A Lines)
22. SS-A00122, Assy & Details - SKM - .030 Scale Pressure/Loads Model (140A Lines)
23. SS-A00123, Assy & Details - Forebody - .030 Scale Pressure/Loads Model (140A Lines)
24. SS-A00124, Assy & Details - Aft Fuselage - .030 Scale Pressure/Loads Model (140A Lines)
25. SS-A00125, Assy & Details - Wing Splice Plate & Cuff - .030 Scale Pressure/Loads Model (140A Lines)
26. SS-A00126, Assy & Details - Vertical Stabilizer - .030 Scale Pressure/Loads Model (140A Lines)
27. SS-A00127, Ames 11-ft x 11-ft Wind Tunnel Installation - .030 Scale Pressure/Loads Model (140A/B Lines)
28. SS-A00128, Ames 9-ft x 7-ft Wind Tunnel Installation - .030 Scale Pressure/Loads Model (140A/B Lines)
29. SS-A00130, Lines Control - Profile VL70-000140A - .030 Scale Pressure/Loads Model (140A/B Lines)
30. W-1104S Sting - Ames MK II 4" Balance (Male End), Ames MK XX 2.5" Balance
31. W-1105S, Sting - Ames MK II 4" Balance (Male End), RI MK I 2.75 Balance
32. W-1106A, Adapter - Ames MK II, 4" Balance (Male & Female)
33. W-1107A, 13.5" Bent Sting Adapter Ames MK II 4" Balance (Male & Female)

34. (DMS-DR-2129), "Airloads Investigation of an 0.030-Scale Model of the Space Shuttle Vehicle 140A/B Launch Configuration (Model 47-OTS) in the ARC 9- by 7-foot Unitary Plan Wind Tunnel for Mach Range 1.55 and 2.2 (IA14B)"
35. (DMS-DR-2130), "Airloads Investigation of an 0.030-Scale Model of the Space Shuttle Vehicle 140A/B Orbiter Configuration (Model 47-0) in the ARC 11-foot Unitary Plan Wind Tunnel for Mach Range 0.6 and 0.9 (OA22A)"
36. (DMS-DR-2131), "Airloads Investigation of an 0.030-Scale Model of the Space Shuttle Vehicle 140A/B Orbiter Configuration (Model 47-0) in the ARC 9- by 7-foot Unitary Plan Wind Tunnel for Mach Range 1.55 and 2.2 (OA22B)"



TABLE I.

TEST : <u>IA-14A</u>		DATE : <u>9-13-73</u>	
TEST CONDITIONS			
MACH NUMBER	REYNOLDS NUMBER (per unit length)	DYNAMIC PRESSURE (pounds/sq. ft.)	STAGNATION TEMPERATURE (degrees Fahrenheit)
0.60	$4.0 \times 10^6$	480	120
0.75	$3.75 \times 10^6$	540	120
0.85	$3.5 \times 10^6$	550	120
0.90	$3.5 \times 10^6$	580	120
0.95	$3.25 \times 10^6$	610	120
0.975	$3.0 \times 10^6$	530	120
1.00	$3.0 \times 10^6$	535	120
1.025	$3.0 \times 10^6$	540	120
1.05	$3.0 \times 10^6$	545	120
1.10	$3.0 \times 10^6$	550	120
1.15	$3.0 \times 10^6$	575	120
1.25	$2.75 \times 10^6$	540	120
1.40	$2.75 \times 10^6$	570	120

BALANCE UTILIZED: LVA: 2.5-in MK XX (ORBITER)  
LVAP: 2.5-in MK XX (ORB.), 2.75-in MK I (ET)

	CAPACITY:	ACCURACY:	COEFFICIENT TOLERANCE:
	MK XX   MK I	MK XX   MK I	
NF	6000   7500		
SF	3000   3750	0.2%   0.2%	
AF	500   700	0.2%   0.2%	
PM			
RM	4000   4000	0.2%   0.2%	
YM			

COMMENTS: Test conditions for LVA and LVAP model configurations

TABLE I. - Concluded.

TEST : 1A-14A		DATE : 9-13-73	
TEST CONDITIONS			
MACH NUMBER	REYNOLDS NUMBER (per unit length)	DYNAMIC PRESSURE (pounds/sq. ft)	STAGNATION TEMPERATURE (degrees Fahrenheit)
0.60	$4.0 \times 10^6$	480	120
0.75	$4.25 \times 10^6$	610	120
0.85	$4.5 \times 10^6$	710	120
0.90	$4.5 \times 10^6$	750	120
0.95	$4.5 \times 10^6$	780	120
0.975	$4.25 \times 10^6$	750	120
1.05	$4.25 \times 10^6$	790	120
1.10	$4.0 \times 10^6$	760	120
1.15	$3.75 \times 10^6$	720	120
1.25	$2.75 \times 10^6$	735	120
1.40	$3.0 \times 10^6$	620	120

BALANCE UTILIZED:	2.5-in MK XX (ORB.), 2.75-in MK I (ET)		
	CAPACITY:	ACCURACY:	COEFFICIENT TOLERANCE:
	MK XX MK I	MK XX MK I	
NE	6000 7500	0.2% 0.2%	
SE	3000 3750	0.2% 0.2%	
AF	600 700	0.2% 0.2%	
PC			
RM	4000 4000	0.2% 0.2%	
YM			

COMMENTS: Test conditions for LV model config.

TABLE II

[illegible]

\* FORCE DATA NOT AVAILABLE.

NASA-MSFC-MAF

TABLE II - Continued

TEST: A14A

DATE: 12 SEP 1960

DATA SET RUN NUMBER COLLECTION SUMMARY

DATA SET RUN NUMBER	CONFIGURATION	SCHED. PARAMETERS/VALUES				NO. OF RUNS	TEST RUN NUMBERS										
		B	M	OR	DS		-10	-8	-6	-4	-2	0	2	4	6	8	10
31	$\phi_1 + T_{12} + S_{12} N_{25} + AT_{10}$	A	1.1	0	0		1*	2*	3*	4*	5	6	7	12	13	14	15
32							16*	17*	18*	19*	20	21	22	23	24	25	26
33		V	1.25				27*	28*	29*	30*	31	32	33	34	35	36	37
34	$+AT_{11}$	B	1.40					47	48		49			50		51	
35			1.75					56	55		54			53		52	
36			1.35					42	43		44			45		46	
37			1.95					57	58		59			60		61	
38			1.05					63	64		65			66		67	
39			1.15					68	69		70			71		72	
40			1.4					84	85		86			87		88	
41			1.60					149	148		147			146		145	
42			1.75					140	141		142			143		144	
43			1.85					135	136		137			138		139	
44			1.90					130	131		132			133		134	
45			1.75					125	126		127			128		129	
46			1.75					120	121		122			123		124	
47			1.95					115	116		117			118		119	
48		V	1.10					110	111		112			113		114	

1

7

13

19

25

31

37

43

49

55

61

67

75.76

COEFFICIENTS

$\beta(A) = -10 \phi + 10, 2$   
 $\beta(B) = -3 - 4 \phi, 4$

OR

SCHEDULES

IDVAR (1)

IDVAR (2)

NOV

TABLE II - Concluded

[illegible]

TABLE III. - MODEL DIMENSIONAL DATA

MODEL COMPONENT: ATTACH STRUCTURE - AT<sub>10</sub>GENERAL DESCRIPTION: Attach structure for Integrated Vehicle Configuration4 per VL72-000088B and VL72-000089, modified as follows: RemovedET-to-SRM aft attach struts (4) and left orbiter to right ET aftattach crossover rod.MODEL SCALE: 0.030

DRAWING NO.: SEE DESCRIPTION

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
FORWARD ATTACH		
Orbiter to Tank		
Number of struts	<u>2</u>	<u>2</u>
Diameter - In.	<u>6.000</u>	<u>0.180</u>
Location - In.		
$X_O$	<u>382.000</u>	<u>11.460</u>
$X_T$	<u>1078.000</u>	<u>32.340</u>
DRAG LINK ATTACH		
Orbiter to Tank		
Number of struts	<u>2</u>	<u>2</u>
Diameter, In.	<u>15.000</u>	<u>0.450</u>
Location, In.		
$X_O$	<u>1307.000</u>	<u>39.210</u>
$X_T$	<u>1859.000</u>	<u>55.770</u>
AFT ATTACH		
Orbiter to Tank		
Number of struts	<u>2</u>	<u>2</u>
Diameter - In.	<u>12.000</u>	<u>0.360</u>
Location - In.		
$X_O$	<u>1307.000</u>	<u>39.210</u>
$X_T$	<u>2058.000</u>	<u>61.740</u>
CROSSOVER ROD (RIGHT ORBITER TO LEFT ET)		
Diameter, In.	<u>8.000</u>	<u>0.240</u>
Location - In.		
$X_O$	<u>1307.000</u>	<u>39.210</u>
$X_T$	<u>2058.000</u>	<u>61.740</u>

TABLE III. - Continued.

MODEL COMPONENT: ATTACH STRUCTURE - AT<sub>11</sub>

GENERAL DESCRIPTION: Attach structure, same as AT<sub>10</sub> except the forward attach struts are rotated to the vertical, and the structure extends from the orbiter but is not attached to the tank.

MODEL SCALE: 0.030

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
FORWARD ATTACH		
Orbiter to Tank		
Location - In.		
$X_O$	<u>382.000</u>	<u>11.460</u>
$X_T$	<u>1133.000</u>	<u>33.990</u>
Clearance, tank to strut - In.	<u>16.667</u>	<u>0.500</u>
DRAG LINK ATTACH		
Orbiter to Tank		
Clearance, tank to strut - In.	<u>8.333</u>	<u>0.250</u>
AFT ATTACH		
Orbiter to Tank		
Clearance, Tank to strut - In.	<u>8.333</u>	<u>0.250</u>
Crossover Rod		
Clearance, tank to strut - In.	<u>8.333</u>	<u>0.250</u>

TABLE III. - Continued.

MODEL COMPONENT: BODY - B<sub>26</sub>GENERAL DESCRIPTION: Orbiter Fuselage Configuration 140 A/BNOTE: B<sub>26</sub> identical to B<sub>24</sub> except underside of fuselage refaired to  
accept W<sub>116</sub>.Model Scale = .030DRAWING NUMBER: VL70-000193  
VL70-000140A

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length (Body Fwd Sta $X_0 = 238$ ) - in.	<u>1293.3</u>	<u>38.799</u>
Max. Width (at $X_0 = 1520$ ) - in.	<u>262.0</u>	<u>7.860</u>
Max. Depth (at $X_0 = 1464$ ) - in.	<u>250.0</u>	<u>7.500</u>
Fineness Ratio	<u>0.26357</u>	<u>0.26357</u>
Area - ft <sup>2</sup>		
Max. Cross-Sectional	<u>340.88462</u>	<u>0.30679</u>
Planform	<u>                    </u>	<u>                    </u>
Wetted	<u>                    </u>	<u>                    </u>
Base	<u>                    </u>	<u>                    </u>



TABLE III. - Continued.

MODEL COMPONENT: CANOPY - CgGENERAL DESCRIPTION: Configuration 3AModel Scale = .030

DRAWING NUMBER

VL70-000140AVL70-000143ADIMENSION:FULL SCALEMODEL SCALELength ( $X_0=434.643$  to  $670$ )235.3577.06071Max Width ( $X_0=513.127$ )152.4124.57236Max Depth ( $X_0=485.0$ )25.0000.75000

Fineness Ratio

Area

Max Cross-Sectional

Planform

Wetted

Base

TABLE III. - Continued.

MODEL COMPONENT: ELEVON - E<sub>26</sub>GENERAL DESCRIPTION: Configuration 4NOTE: VL70-000400 data for (1) of (2) sides. Identical to E<sub>25</sub> except  
airfoil thicknessModel Scale = .030DRAWING NUMBER:VL70-000200  
VL70-000140 BDIMENSIONS:FULL-SCALEMODEL SCALE

Area	<u>223.5814</u>	<u>0.20122</u>
Span (equivalent)	<u>368.34</u>	<u>11.05020</u>
Inb'd equivalent chord	<u>119.623</u>	<u>3.58869</u>
Outb'd equivalent chord	<u>55.1922</u>	<u>1.65577</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.2096</u>	<u>0.2096</u>
At Outb'd equiv. chord	<u>0.4004</u>	<u>0.4004</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0.00</u>	<u>0.00</u>
Tailing Edge	<u>-10.056</u>	<u>-10.056</u>
Hingeline	<u>0.00</u>	<u>0.00</u>
Area Moment (Normal to hinge line)	<u>851.1502</u>	<u>0.76604</u>

TABLE III. - Continued.

MODEL COMPONENT: Body Flap - F<sub>8</sub>GENERAL DESCRIPTION: Configuration 4Model Scale - .030  
DRAWING NUMBERVL70-000140B, VL70-000200

<u>DIMENSION:</u>	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length in.	<u>84.7</u>	<u>2.541</u>
Max Width in.	<u>262.308</u>	<u>7.86924</u>
Max Depth in.	<u>23.000</u>	<u><del>0.69000</del></u>
Fineness Ratio	<u>          </u>	<u>          </u>
Area - ft <sup>2</sup>		
Max Cross-Sectional	<u>          </u>	<u>          </u>
Planform	<u>158.85350</u>	<u>0.14297</u>
Wetted	<u>          </u>	<u>          </u>
Base	<u>41.89642</u>	<u>0.03771</u>

TABLE III. - Continued.

MODEL COMPONENT: OMS POD - M7GENERAL DESCRIPTION: Configuration 3AModel Scale = .030

DRAWING NUMBER

VL70-000140AVL70-000145DIMENSION:FULL SCALEMODEL SCALELength (OMS Fwd Sta  $X_0=1233.0$ ) - IN.327.0009.810Max Width (@  $X_0=1450.0$ ) - IN.94.52.8350Max Depth (@  $X_0=1493.0$ ) - IN.109.0003.270

Fineness Ratio

Area

Max Cross-Sectional

Planform

Wetted

Base

TABLE III. - Continued.

MODEL COMPONENT: BSRM NOZZLES - N25GENERAL DESCRIPTION: Configuration 3A BSRM Nozzles

Model Scale = .030

DRAWING NO.

VL72-000000A  
VL77-000000A

## DIMENSIONS

## FULL-SCALE

## MODEL SCALE

MACH NO. \_\_\_\_\_

DIAMETER DEX ~ IN (One Nozzle)

141.34.2390

DIAMETER DT ~ IN

DIAMETER DIN ~ IN

ON ~ DEGREES

AREA - FT<sup>2</sup> (One Nozzle)

MAX CROSS-SECTIONAL

108.895950.09801

## GIMBAL ORIGIN

X<sub>o</sub>Y<sub>o</sub>Z<sub>o</sub>

LEFT NOZZLE ~ IN. F.S.

1825.3-243400

RIGHT NOZZLE ~ IN. FS

1825.3+243400

## NULL POSITION - DEG.

PITCHYAW

LEFT NOZZLE

+8+8

RIGHT NOZZLE

+8+8

TABLE III. - Continued.

MODEL COMPONENT: NOZZLES - N28GENERAL DESCRIPTION: Configuration 3A OMS NozzleModel Scale = .030DRAWING NO. VL70-000140A

DIMENSIONS	FULL-SCALE	MODEL SCALE
MACH NO. _____		
DIAMETER DEX ~ IN (One nozzle)	_____	_____
DIAMETER DT ~ IN	_____	_____
DIAMETER DIN ~ IN	_____	_____
ON ~ DEGREES	_____	_____
AREA - Ft <sup>2</sup> (one nozzle)		
MAX CROSS-SECTIONAL	_____	_____
GIMBAL ORIGIN	<u>X<sub>o</sub></u>	<u>Y<sub>o</sub></u> <u>Z<sub>o</sub></u>
LEFT NOZZLE ~ IN.	<u>1518.0</u>	<u>-88.0</u> <u>492.0</u>
RIGHT NOZZLE ~ IN.	<u>1518.0</u>	<u>+88.0</u> <u>492.0</u>
NULL POSITION	<u>PITCH</u>	<u>YAW</u>
LEFT NOZZLE (Null Pitch 15°49'; Yaw 12°17' OUTB'D)	<u>±8°</u>	<u>13°17' OUTB'D</u> <u>2°30' INB'D</u>
RIGHT NOZZLE (Null Pitch 15°49'; Yaw 12°17' OUTB'D)	<u>±8°</u>	<u>13°17' OUTB'D</u> <u>2°17' INB'D</u>

TABLE III. - Continued.

MODEL COMPONENT: RUDDER - R5GENERAL DESCRIPTION: 2A, 3 and 3A Configuration per Rockwell LinesVL70-000095Model Scale = .030DRAWING NUMBER: VL70-000095

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - FT <sup>2</sup>	<u>106.38</u>	<u>0.09574</u>
Span (equivalent) - IN.	<u>201.0</u>	<u>6.0300</u>
Inb'd equivalent chord	<u>91.585</u>	<u>2.74755</u>
Outb'd equivalent chord	<u>50.833</u>	<u>1.52499</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>34.83</u>	<u>34.83</u>
Tailing Edge	<u>26.25</u>	<u>26.25</u>
Hingeline	<u>34.83</u>	<u>34.83</u>
Area Moment (Normal to hinge line)- FT <sup>3</sup>	<u>526.13</u>	<u>0.01420</u>
Product of Area and Mean Chord		

TABLE III. - Continued.

MODEL COMPONENT: BOOSTER SOLID ROCKET MOTOR - S<sub>12</sub>GENERAL DESCRIPTION: Configuration 3A, Data for (1) of (2) sides,  
per Rockwell Lines VL77-000036AModel Scale = .030

DRAWING NUMBER

VL72-000088AVL77-000036ADIMENSION:FULL SCALEMODEL SCALE

Length (Includes Nozzle) - IN.	<u>1741.0</u>	<u>52.2300</u>
Max Width (Tank Dia) - IN.	<u>142.3</u>	<u>4.2690</u>
Max Depth (Aft Shroud) - IN.	<u>192.0</u>	<u>5.7600</u>
Fineness Ratio	<u>9.06771</u>	<u>9.06771</u>
Area - FT <sup>2</sup>		
Max Cross-Sectional	<u>201.06193</u>	<u>0.18096</u>
Planform	<u>                    </u>	<u>                    </u>
Wetted	<u>                    </u>	<u>                    </u>
Base	<u>                    </u>	<u>                    </u>
WP of BSRM Centerline (Z <sub>T</sub> ) - IN.	<u>400</u>	<u>12.000</u>
FS of BSRM Nose (X <sub>T</sub> ) - IN.	<u>200</u>	<u>6.000</u>



TABLE III. - Continued.

MODEL COMPONENT: EXTERNAL TANK - T12GENERAL DESCRIPTION: External Oxygen Hydrogen Tank

NOTE: Identical to T11 with external fuel lines added

Model Scale = .030DRAWING NUMBER VL78-000031A  
VL78-000041A

<u>DIMENSION:</u>	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length - IN. (Nose @ $X_T = 309$ )	<u>1865</u>	<u>57.629</u>
Max Width (Dia) - IN.	<u>324</u>	<u>9.72</u>
Max Depth	<u></u>	<u></u>
Fineness Ratio	<u>5.75617</u>	<u>5.75617</u>
Area - FT <sup>2</sup>		
Max Cross-Sectional	<u>572.555</u>	<u>17.177</u>
Planform	<u></u>	<u></u>
Wetted	<u></u>	<u></u>
Base	<u></u>	<u></u>
WP of Tank Centerline ( $X_T$ ) - IN.	<u>400.0</u>	<u></u>

TABLE III. - Continued.

MODEL COMPONENT: VERTICAL - V<sub>8</sub>GENERAL DESCRIPTION: Configuration 3A

NOTE: Similar to V5 with radius on TE upper corner and LE lower corner  
 where vertical meets fuselage.

Model Scale = .030DRAWING NUMBER: VL70-000140A  
VL70-000146A

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
<u>TOTAL DATA</u>		
Area (Theo) Ft <sup>2</sup>	<u>413.253</u>	<u>0.37193</u>
Planform		
Span (Theo) In	<u>315.720</u>	<u>9.47160</u>
Aspect Ratio	<u>1.675</u>	<u>1.675</u>
Rate of Taper	<u>0.507</u>	<u>0.507</u>
Taper Ratio	<u>0.40399</u>	<u>0.40399</u>
Sweep Back Angles, degrees		
Leading Edge	<u>45.00</u>	<u>45.00</u>
Trailing Edge	<u>25.947</u>	<u>25.947</u>
0.25 Element Line	<u>41.130</u>	<u>41.1300</u>
Chords:		
Root (Theo) WP	<u>268.500</u>	<u>8.05500</u>
Tip (Theo) WP	<u>108.470</u>	<u>3.25410</u>
MAC	<u>199.80756</u>	<u>5.99423</u>
Fus. Sta. of .25 MAC	<u>1463.50</u>	<u>43.9050</u>
W. P. of .25 MAC	<u>635.522</u>	<u>19.06566</u>
B. L. of .25 MAC	<u>0.00</u>	<u>0.00</u>
Airfoil Section		
Leading Wedge Angle Deg	<u>10.00</u>	<u>10.00</u>
Trailing Wedge Angle Deg	<u>14.920</u>	<u>14.920</u>
Leading Edge Radius (Min) - IN.	<u>2.00</u>	<u>0.060</u>
Void Area	<u>13.17</u>	<u>0.01185</u>
Blanketed Area	<u>0.00</u>	<u>0.00</u>

TABLE III. - Concluded.

MODEL COMPONENT: <u>WING-WJ16</u>		
GENERAL DESCRIPTION: <u>Configuration 4</u>		
NOTE: <u>Identical to WJ14 except airfoil thickness. Dihedral angle is along trailing edge of wing.</u>		
Model Scale = <u>.030</u>		
TEST NO.	DWG. NO. <u>VL70-000140B</u> <u>VL70-000200</u>	
DIMENSIONS:	FULL-SCALE	MODEL SCALE
TOTAL DATA		
Area (Theo.) $\text{Ft}^2$		
Planform	2690.00	2.4210
Span (Theo) In.	936.6816	28.10045
Aspect Ratio	2.265	2.265
Rate of Taper	1.177	1.177
Taper Ratio	0.200	0.200
Dihedral Angle, degrees (at $X_0=1506.623, Y_0=$	3.500	3.500
Incidence Angle, degrees 105, $Z_0=282.75$ )	0.500	0.500
Aerodynamic Twist, degrees	+3.000	+3.000
Sweep Back Angles, degrees		
Leading Edge	45.00	45.00
Trailing Edge	-10.056	-10.056
0.25 Element Line	35.209	35.209
Chords:		
Root (Theo) B.P.O.O.	689.2429	20.67729
Tip, (Theo) B.P.	137.8486	4.13546
MAC	474.8117	14.24435
Fus. Sta. of .25 MAC	1126.721	33.80163
W.P. of .25 MAC	291.00	8.73000
B.L. of .25 MAC	187.33491	5.62005
EXPOSED DATA		
Area (Theo) $\text{Ft}^2$	1812.2205	1.63010
Span, (Theo) In. BP108	736.6816	22.10045
Aspect Ratio	2.058	2.058
Taper Ratio	0.2451	0.2451
Chords		
Root BP108	570.6230	17.11869
Tip $1.00 \frac{b}{2}$	137.8512	4.13554
MAC	354.2376	10.62713
Fus. Sta. of .25 MAC	1164.237	34.92711
W.P. of .25 MAC	292.00	8.76000
B.L. of .25 MAC	239.67786	7.19034
Airfoil Section (Rockwell Mod NASA)		
XXXX-64		
Root $b = 0.425 \frac{b}{2}$	0.113	0.113
Tip $b = 1.00 \frac{b}{2}$	0.12	0.12
Data for (1) of (2) Sides		
Leading Edge Cuff		
Planform Area $\text{Ft}^2$	118.333	0.10650
Leading Edge Intersects Fus M. L. 0 Sta	505.0	15.15000
Leading Edge Intersects Wing 0 Sta	1003.5	30.10500

TABLE IV. - ORBITER FUSELAGE PRESSURE ORIFICE LOCATIONS

ORBITER $X_0$ IN.		RADIAL LOCATION $\phi$ DEGREES																		
FULL	MODEL $X_0/10$	0	20	40	55	70	90	105	110	120	135	140	150	151	156	162	165	169	174	180
155	7.05	6																		
243	7.35	7					8													9
165	7.95	10	12	12	13	14	15			16			17							18
155	8.35	19	20	21	22	23	24			25			26							27
155	8.75	28	29	30	31	32	33			34			35							36
155	11.40	37	38	39	40	41	42			43			44							45
155	13.20														54			55	46	56
155	15.00	47	48	49	50	51	52			53		66	67	57		58				
155	16.80		60	61	62	63	64			65			67			68				69
155	18.75			71		72	73			74			75			76				77
625	21.75			79		80	81			82			83			84				85
725	21.75			87		88	89			90			91			92				93
880	26.40			95		96	97			98			99			100				101
980	29.40			103																
1080	32.40			105			107			108			109							111
1180	35.40			113			115			116			117			110				118
1245	37.35			120			122	123		124	125		126			127				128
1300	39.00			130			132	133		134	135		136							137
1375	41.25			139			141	142		143	144		145			146				
1450	42.90			148			149	151		152	153		154			155				
1480	44.40			157			158	160		161	162		163			164				
1530	45.90								165	166										
1530	45.90								167	168										
1555	46.65	169	170																	
1590	47.70	171	172																	
1590	47.70	173	174																	

 $X_0 = 1293.3$  full scale $X_0 = 38.799$  model

data in datasets R31BXX

a: OMS pod, inside

b: OMS pod, outside

c: Body flap lower surface

d: Body flap upper surface

TABLE V. - ORBITER WING PRESSURE ORIFICE LOCATIONS

ORBITER WING

ORBITER B.P. NO.		X/C ~ LOCAL WING CHORD																				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
140	4.20	299	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	
170	5.10	364	202	202	202	202	202	202	202	202	202	202	202	202	202	202	202	202	202	202	202	
200	6.00	427	214	214	214	214	214	214	214	214	214	214	214	214	214	214	214	214	214	214	214	
230	7.50	534	238	238	238	238	238	238	238	238	238	238	238	238	238	238	238	238	238	238	238	
300	9.45	673	253	253	253	253	253	253	253	253	253	253	253	253	253	253	253	253	253	253	253	
365	10.95	800	283	283	283	283	283	283	283	283	283	283	283	283	283	283	283	283	283	283	283	
415	12.45	887	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	

- 1 X/C = .19
- 2 X/C = .34
- 3 X/C = .03
- 4 X/C = .045

data in data sets RBILXX (lower surface and RBIUXX (upper surface)

ORIGINAL PAGE  
OF POOR QUALITY

TABLE VI. - ORBITER VERTICAL TAIL PRESSURE ORIFICE LOCATIONS

ORBITER VERTICAL TAIL

VERTICAL $W_L \sim Z_0$				X/C <sub>V</sub>									
FULL	MODEL	TV		0	.025	.05	.15	.30	.52	.685	.775	.90	
550	16.50	.158	RH LE LH	316		324 317	325 319	326 320	327 321	328 322	329 323		
600	18.00	.316	RH LE LH	330		339 331	340 333	341 334	342 335	343 336	344 337	345 338	
690	20.70	.600	RH LE LH	346		355 347	356 349	357 350	358 351	359 352	360 353	361 354	
765	22.95	.840	RH LE LH	362		371 363	372 365	373 366	374 367	375 368	376 369	377 370	
792	23.76	.925	RH LE LH	378		387 379	388 381	389 382	390 383	391 384	392 385	393 386	

data in datasets RBIVXX (left side) and RBIRXX (right side)

TABLE VII. - ORBITER BASE, BODYFLAP, AND OMS NOZZLE PRESSURE ORIFICE LOCATIONS

ORBITER BASE

LOCATION	ORIFICE NUMBER
Orbiter Sting Cavity	1
Orbiter Base (Lower Left Corner)	2
OMS Nozzle Base	3

data in datasets RB1CXX

RUDDER FLARE BASE

RUDDER $\eta \sim Z_o$		X/C <sub>V</sub>
FULL	MODEL	.75
725	10.75	4
625	21.75	5

data in datasets RB1CXX

BODY FLAP

ORBITER $\sim X_o$		$\phi \sim \text{Deg}$	
FULL	MODEL	0	40
1555	46.65	169	170
1590	47.70	173	174
1590	47.70	171	172

data in datasets RB1FXX

LEFT OMS NOZZLE SURFACE

X <sup>o</sup> IN. FWD. NOZZLE EXIT		$\phi \sim \text{DEG.}$		
FULL	MODEL	135	180	225
10	.30	175	176	177
20	.60		178	

data in datasets RB1EXX

TABLE VIII. - EXTERNAL TANK PRESSURE ORIFICE LOCATIONS

## EXTERNAL TANK

TANK STATION $\sim \lambda_T$			$\phi \sim \text{DEG.}$									
FULL SCALE	MODEL SCALE	$\frac{\lambda_T}{r_T}$	0	30	60	90	120	135	150	165	180	270
309	9.27	0	503			505					506	507
324	9.72	.008	504	509	510	511	512		513	521	514	
400	12.00	.049	508	516	517	518	519		520	529	522	
520	15.00	.113	515	524	525	526	527		528	537	530	
640	19.20	.178	523	532	533	534	535		536	545	538	
670	20.10	.194	531	540	541	542	543		544	554	546	
710	21.30	.215	539	548	549	550	551	552	553	562	555	564
760	22.80	.242	547	557	558	559	560	569	561	571	563	
850	25.50	.290	556	566	567	568	569	577	570	579	572	
950	28.50	.344	565	574	575	576	577	586	578	588	580	
1050	31.30	.394	573	582	583	584	585		587	596	589	
1150	34.50	.451	581	591	592	593	594		595	605	597	
1250	37.50	.505	590	599	600	601	602	603	604	613	606	
1350	40.50	.558	598	608	609	610	611		612	622	614	
1500	45.00	.638	607	616	617	618	619	620	621	631	623	
1700	51.00	.746	615	625	626	627	628	629	630	639	632	
1900	57.00	.853	624	634	635		636	637	638		640	
2040	61.20	.928	633									
TANK BASE			501								502	
STING CAVITY												

$l_T = 1865 \text{ IN. FULL SCALE}$   
 $55.950 \text{ IN. MODEL SCALE}$

data in datasets RB1TXX



TABLE IX. - SRM PRESSURE ORIFICE LOCATIONS

LEFT SRM

SRM STATION ~ X <sub>S</sub>			Ø ~ DEG.							
FULL SCALE	MODEL SCALE	X <sub>S</sub> IN.	0	45	90	135	180	225	270	315
200	6.00	0	805	807	808	809	810	811	812	813
260	7.80	.034	806	815	816	817	818	819	820	821
370	11.10	.098	814	823	824	825	826	827	828	828
400	12.00	.115	822	830	831	832	833	834	835	836
450	13.50	.144	829	838	839	840	841	842	843	844
550	16.50	.201	837				847	848	849	850
700	21.00	.287	845		846		853		854	
850	25.50	.373	851		852		857			
1050	31.50	.488	855		856		860			
1250	37.50	.603	858		859		863		864	
1450	43.50	.718	861		862		867		868	
1650	49.50	.833	865		866		872	874	875	876
1750	52.50	.890	869	870	871	872	873	874	875	
1796	53.88	.917	877	878	879	880	881	882	883	884
1835	55.05	.939	885	886	887	888	889	890	891	892
1898	56.04	.958	893	894	895	896	897	898	899	900
SKIRT BASE			802			903		804		
NOZZLE BASE			801							
NOZZLE EXTERNAL PRESSURES										
1850	55.50	.948	901	902	903	904	905	906	907	908
1905	57.15	.979	909	910	911	912	913	914	915	916
1923	57.84	.993	917	918	919	920	921	922	923	924

i<sub>s</sub> = 1741 IN. FULL SCALE  
52.53 IN. MODEL SCALE

data in datasets RBISXX



TABLE XI. - EXTERNAL TANK ATTACH POINT PRESSURE ORIFICE LOCATIONS

X <sub>T</sub> Full Scale	1103	1093	1083	1073	1063	1053	1043	
X <sub>T</sub> Model Scale	33.09	32.79	32.49	32.19	31.89	31.59	31.29	
X <sub>T</sub> /l <sub>T</sub>	.424	.419	.413	.408	.402	.397	.391	
								Ø DEG.
FWD ATTACH POINT (ORBITER TO E-T)	684	676	668	660				182.84
	685	677	669	661				186.38
	686	678	670	662	655			189.92
	687	679	671	663	656	652		193.46
	688	680			657	653	651	197.0
	689	681	673	665	658	654		200.54
	690	682	674	666	659			204.06
	691	683	675	667				207.62

data in datasets RB12XX

TABLE XI. - EXTERNAL TANK ATTACH POINT PRESSURE ORIFICE LOCATIONS  
(CONTINUED)

FWD DRAG LINK ATTACH POINT	$X_T$ FULL SCALE	1874	1864	1854	1844	1834	1824	1814	
	$X_T$ MODEL SCALE	56.22	55.92	55.62	55.32	55.02	54.72	54.42	
	$X_T/l_T$	.839	.834	.828	.823	.818	.812	.807	
									$\phi \sim$ DEG.
		719	713	707					222.84
		720	714	708	701				226.38
		721	715	709	702	696			229.92
		722		710	703	697	693		233.46
					704	698	694	692	237.00
						699	695		240.54
		723	718	712	706	700			244.08

data in datasets RB12XX

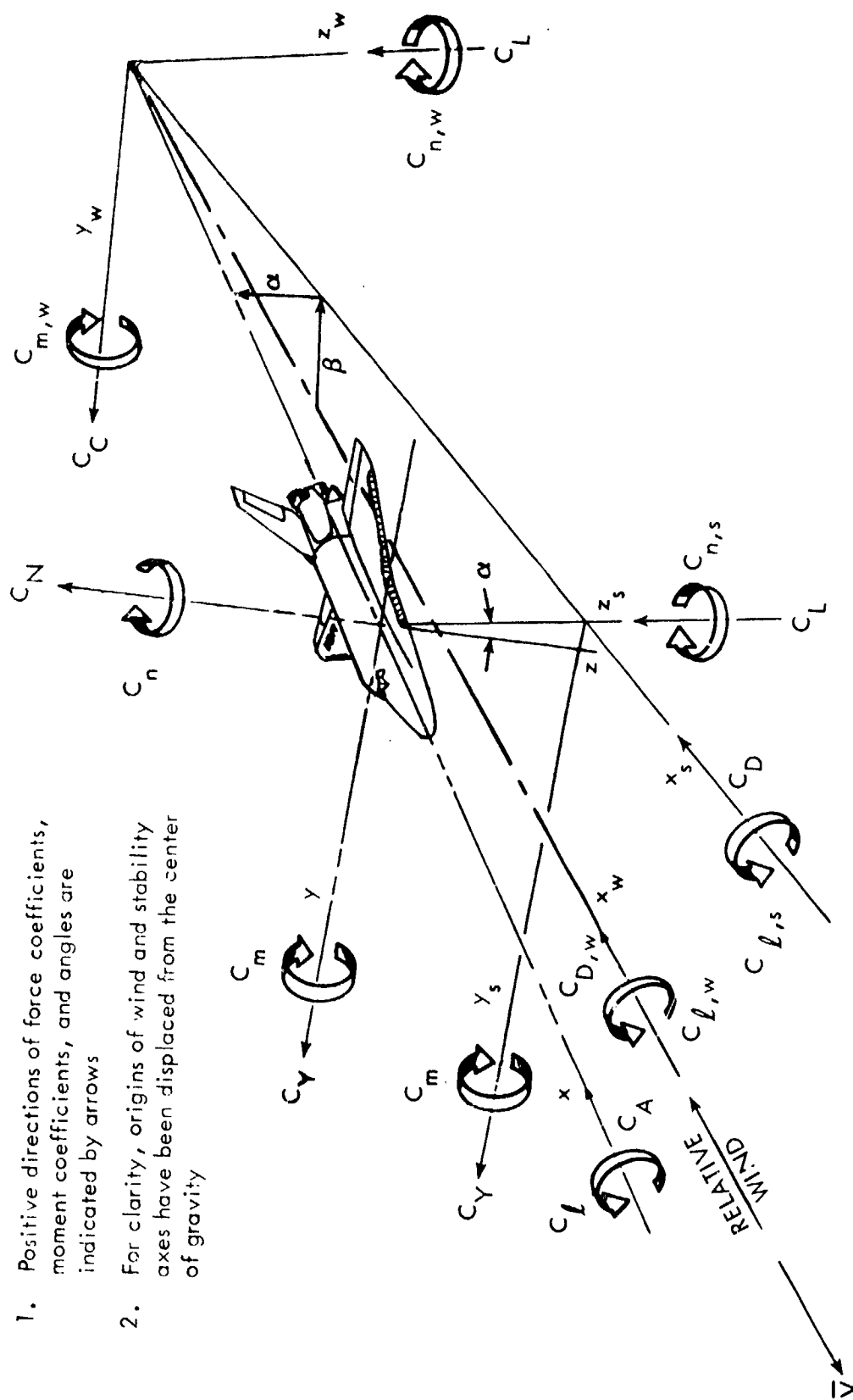
TABLE XI. - EXTERNAL TANK ATTACH POINT PRESSURE ORIFICE LOCATIONS  
(CONCLUDED)

	$X_T$ FULL SCALE	2078	2068	2058	2048	2038	2028	2018	
	$X_T$ MODEL SCALE	62.34	62.04	61.74	61.44	61.14	60.84	60.54	
	$X_T/l_T$	.948	.943	.938	.932	.927	.921	.916	
									$\emptyset \sim \text{DEG.}$
AFT UPPER ATTACH		777	766	754					234.04
		778	767	755	742				237.58
		779	768	756	743	732			241.12
		780	769		744	733	726		244.66
		781	770		745	734	727	724	248.2
					746	735	728		251.74
			771	759	747	736			255.28
		782	772	760					323.51
AFT LOWER ATTACH		783	773	761	748				327.05
		784	774	762	749	737			330.59
		785	775		750	738	729		334.13
		786	776		751	739	730	725	337.67
					752	740	731		341.21
				765	753	741			344.75

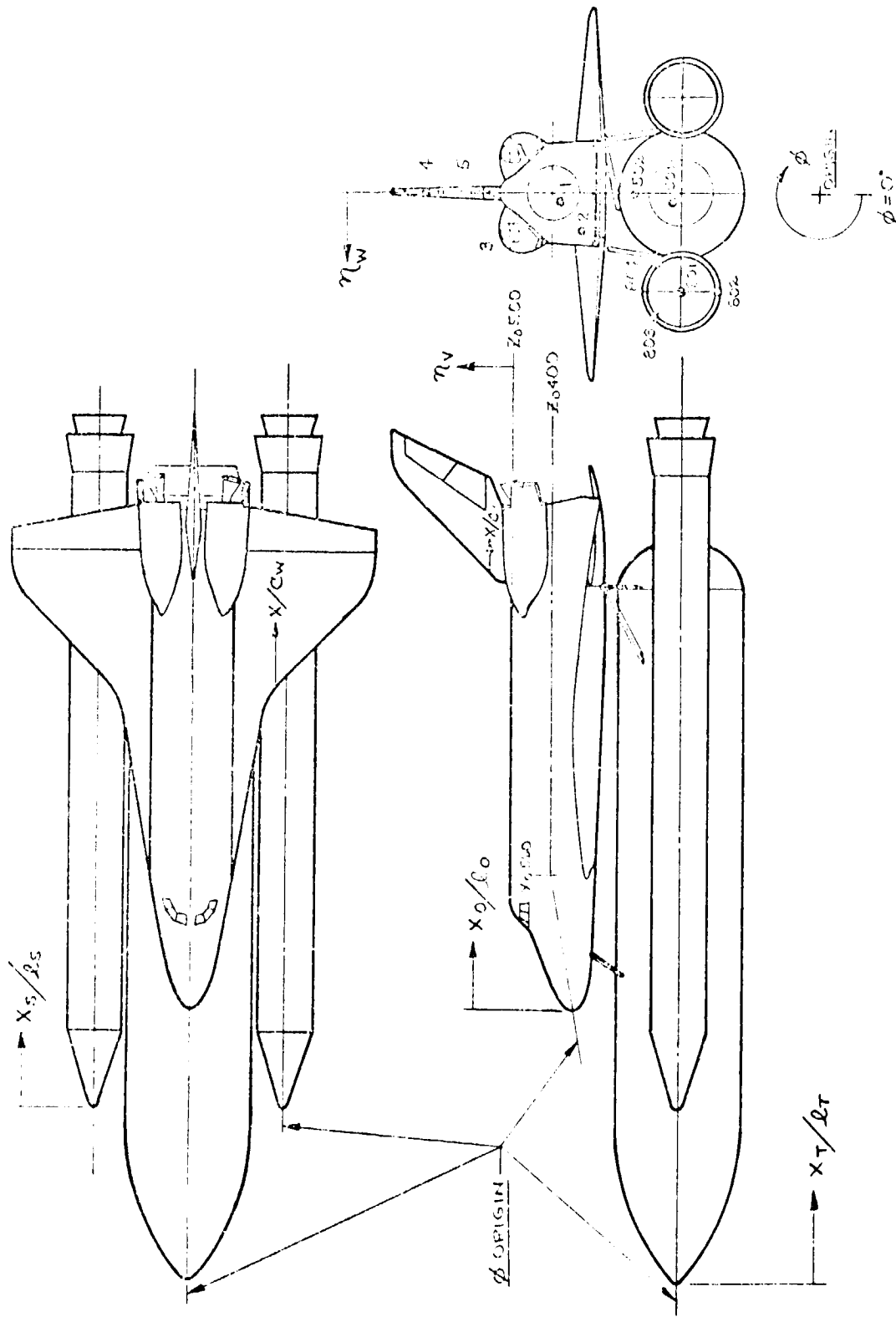
data in datasets RB12XX

# Notes:

1. Positive directions of force coefficients, moment coefficients, and angles are indicated by arrows
2. For clarity, origins of wind and stability axes have been displaced from the center of gravity



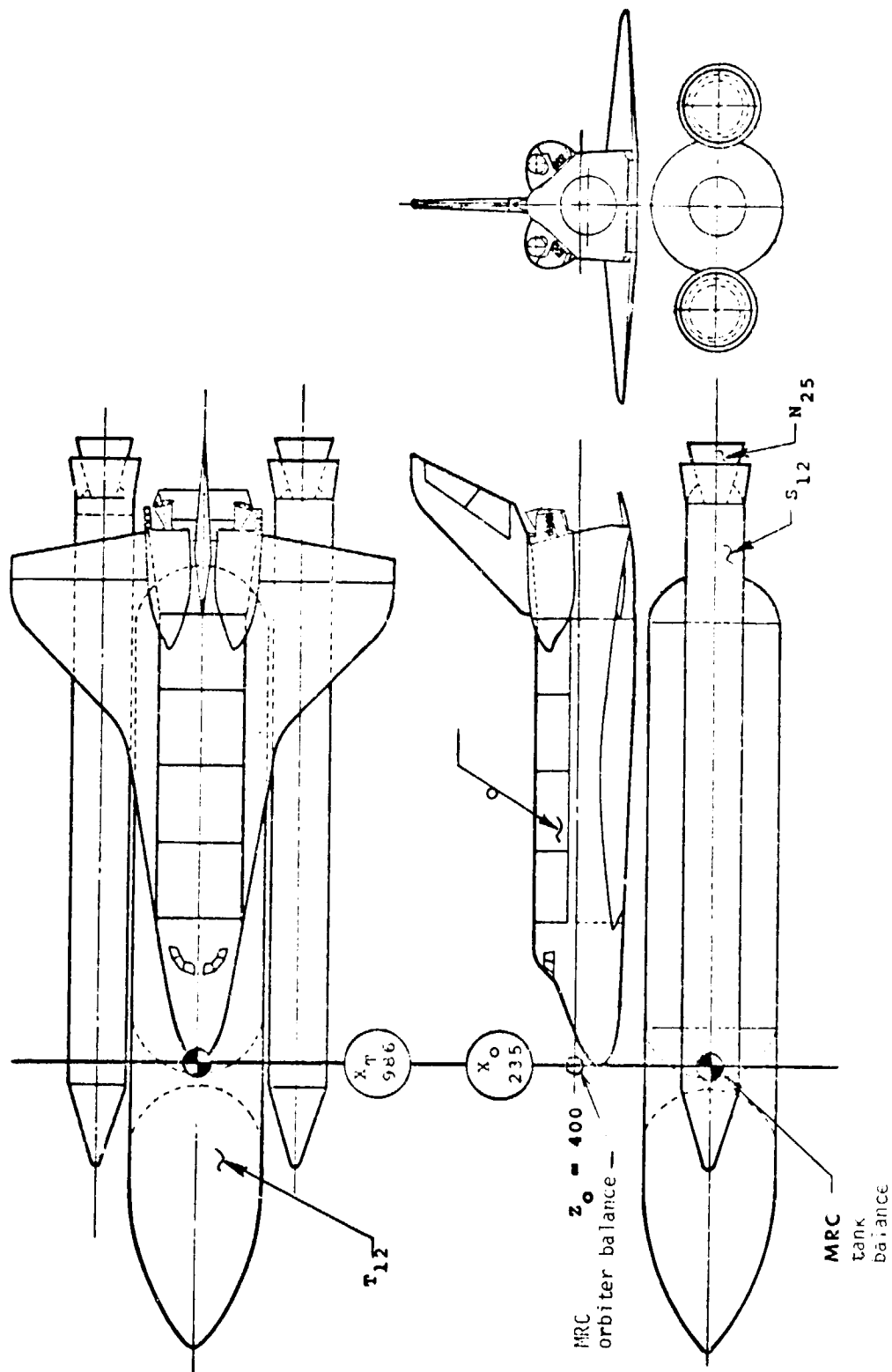
a. Stability and body axis systems  
Figure 1. - Axis Systems



b. Orifice location nomenclature diagram

Figure 1. - Concluded

LV

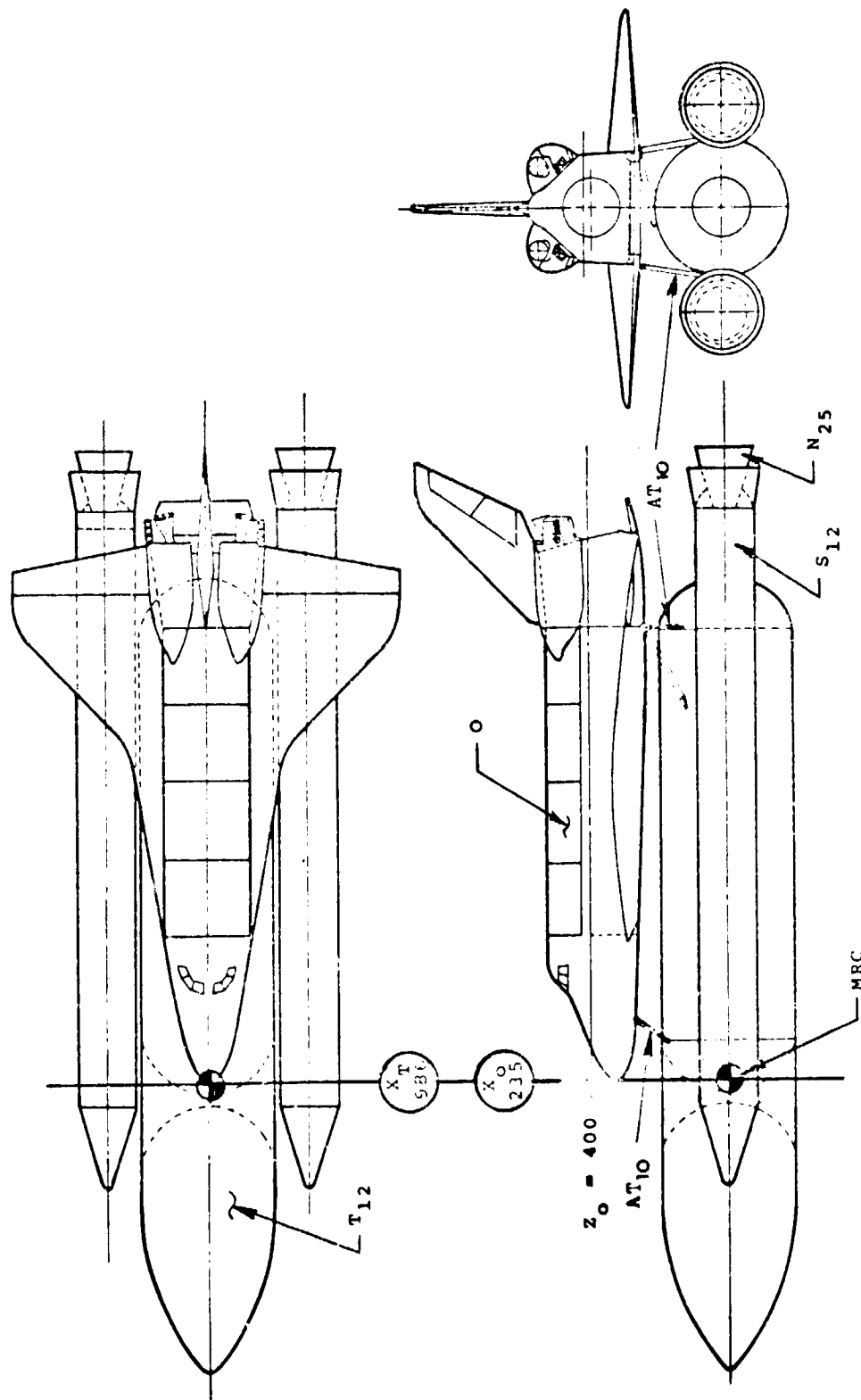


a. Integrated vehicle - 2 balances, no attach structure

Figure 2. - Model Sketches



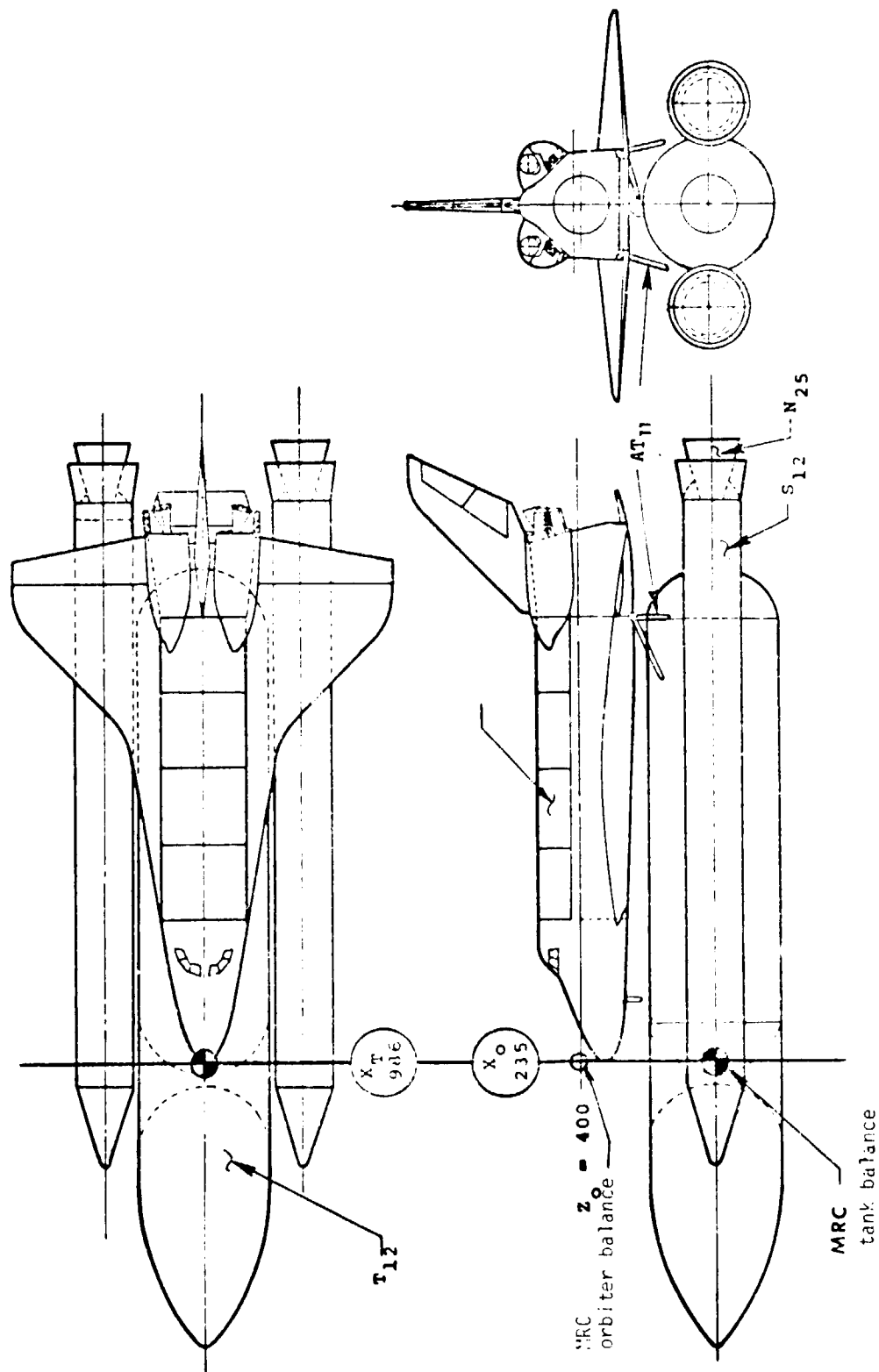
LVAP



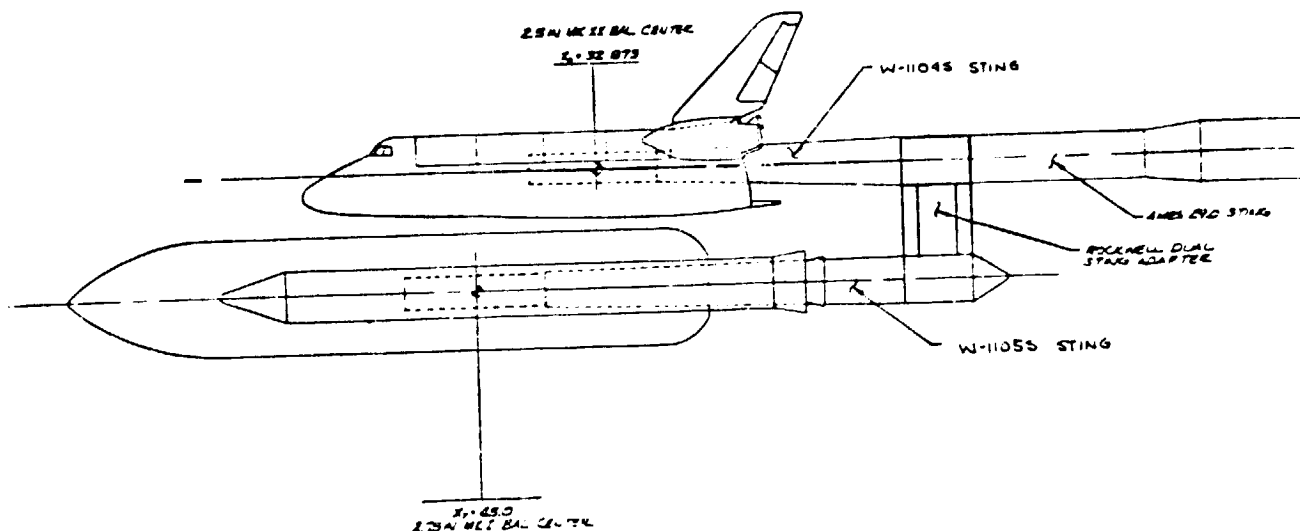
b. Integrated vehicle - 1 balance with attach structure

Figure 2. - Continued

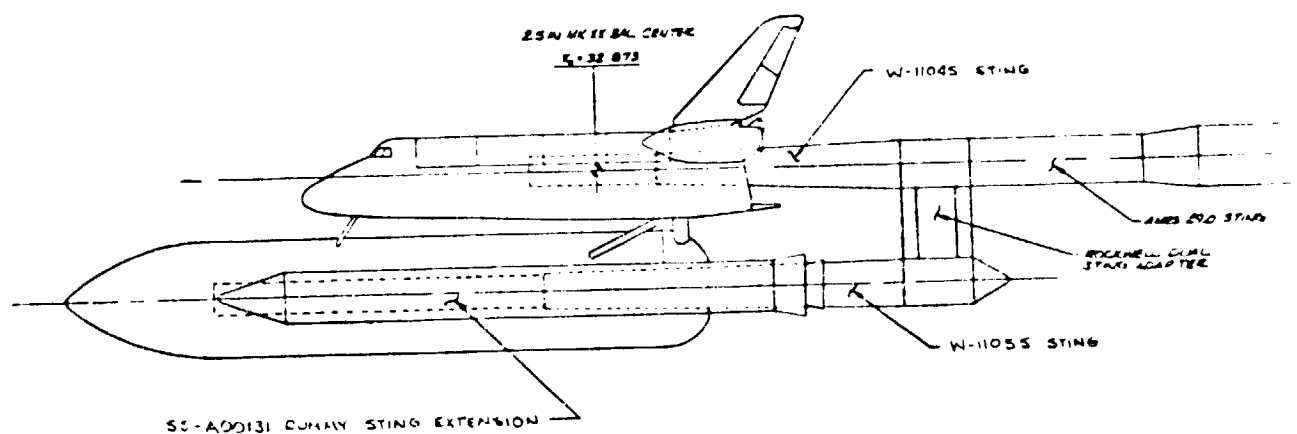
LVAP



c. Integrated vehicle - 2 balances with attach structure  
Figure 2. - Continued



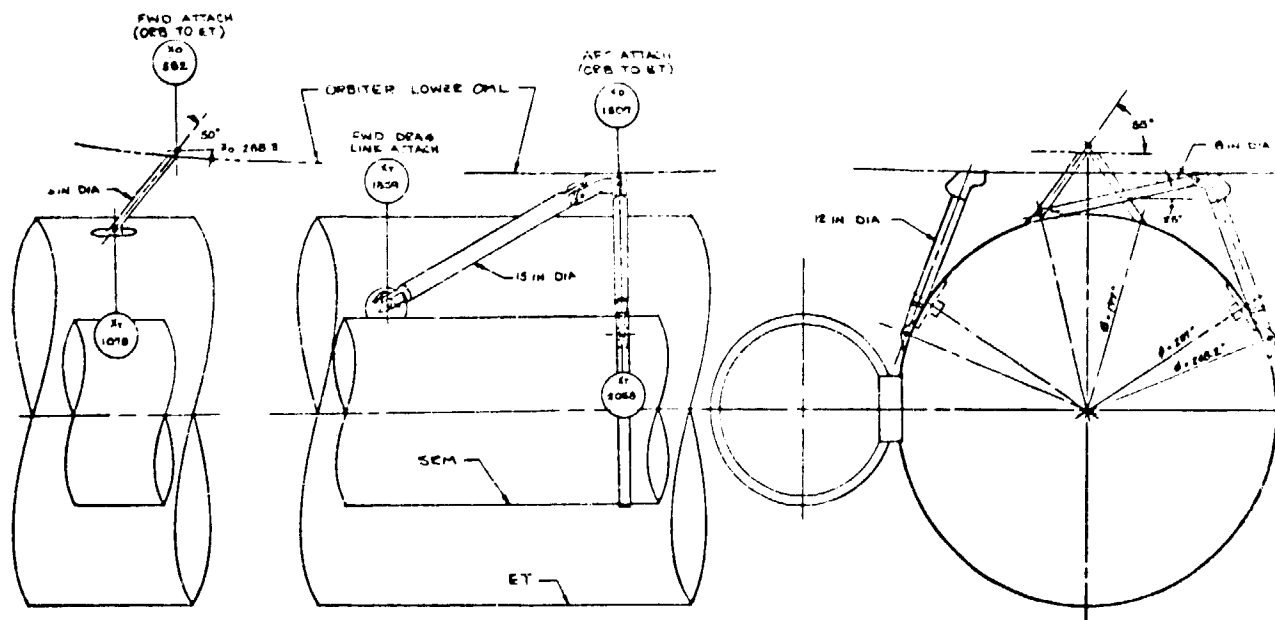
DUAL BALANCE CONFIGURATION ~ LV ± LVAP



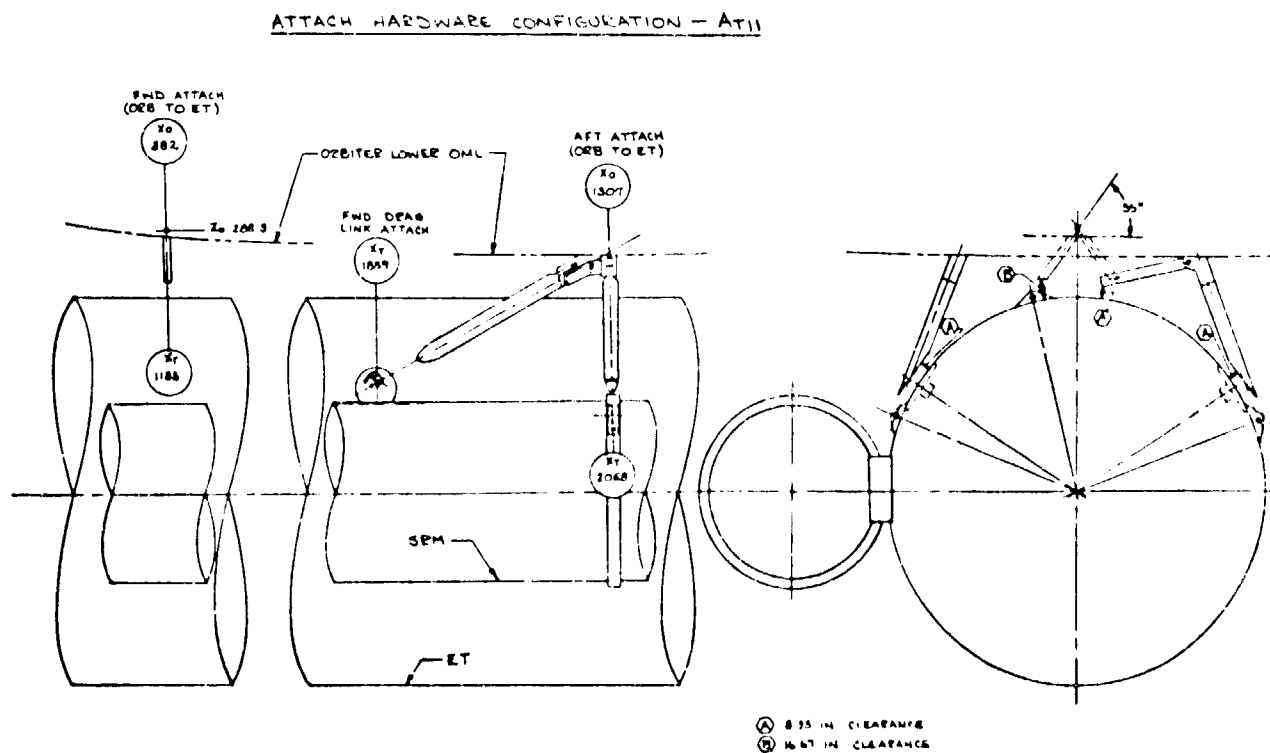
SINGLE BALANCE CONFIGURATION ~ LVA

d. Installation side views

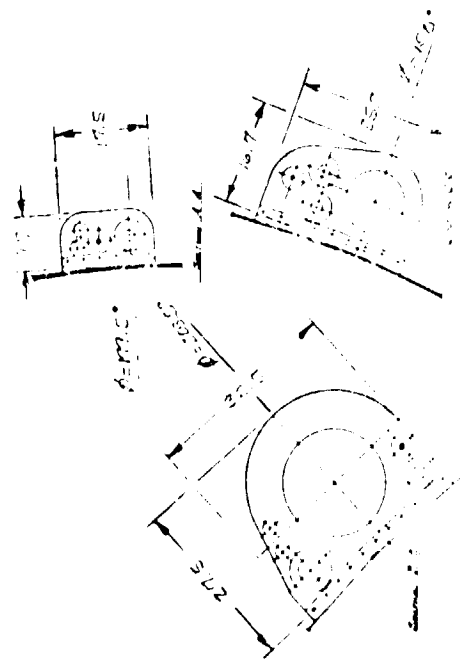
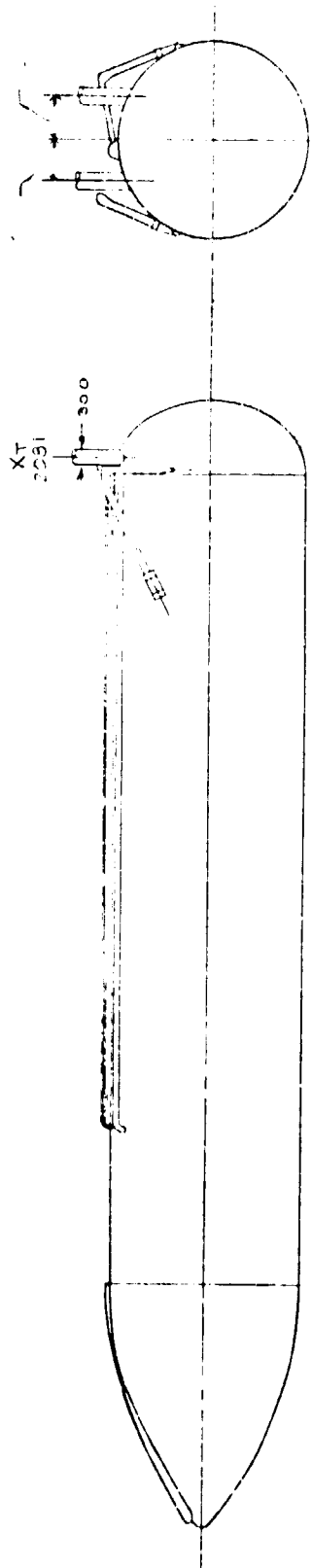
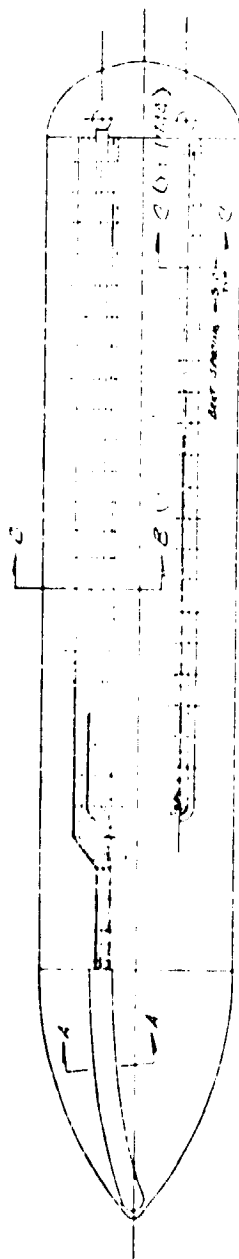
Figure 2. - Continued



ATTACH HARDWARE CONFIGURATION - A110



e. Attach hardware  
Figure 2. Continued

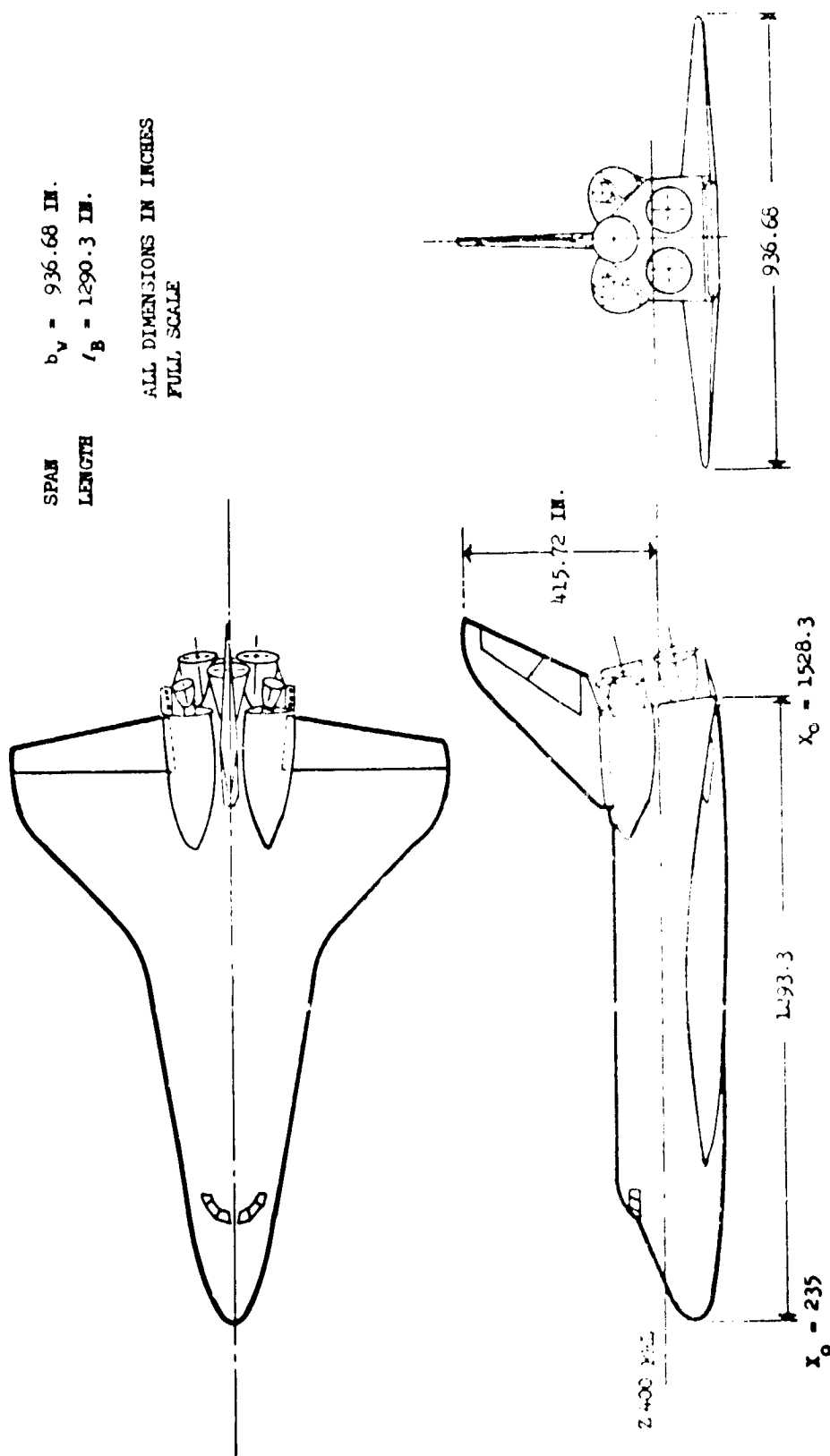


f. External tank protuberances  
Figure 2. - Continued

REFERENCE	DIMENSIONS (FS)
AREA	$S_v = 2600 \text{ FT}^2$
MAC	$C = 474.8 \text{ IN.}$

SPAN  $b_v = 936.68 \text{ IN.}$   
 LENGTH  $l_B = 1290.3 \text{ IN.}$

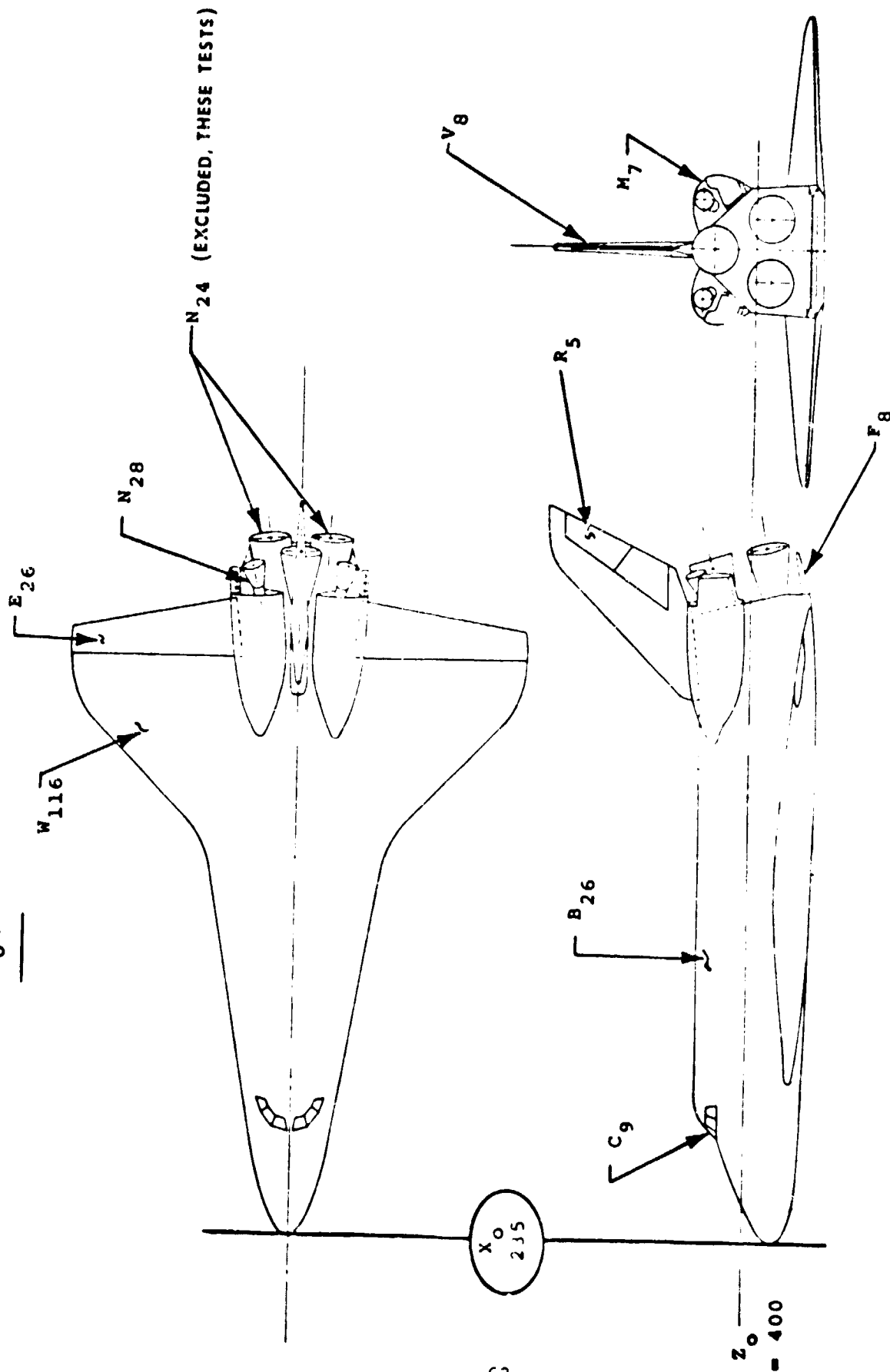
ALL DIMENSIONS IN INCHES  
 FULL SCALE



g. SSV orbiter configuration 140A/B

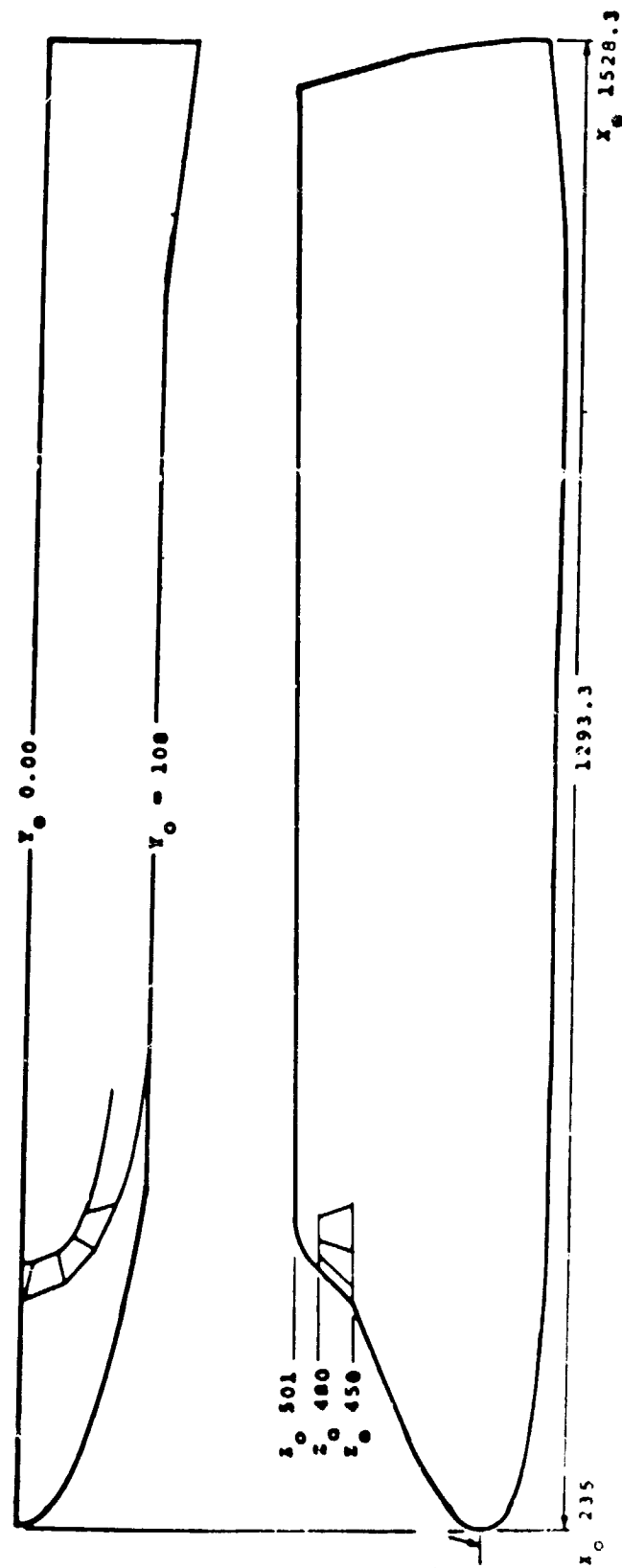
Figure 2. - Continued

01



h. Orbiter nomenclature

Figure 2. - Continued

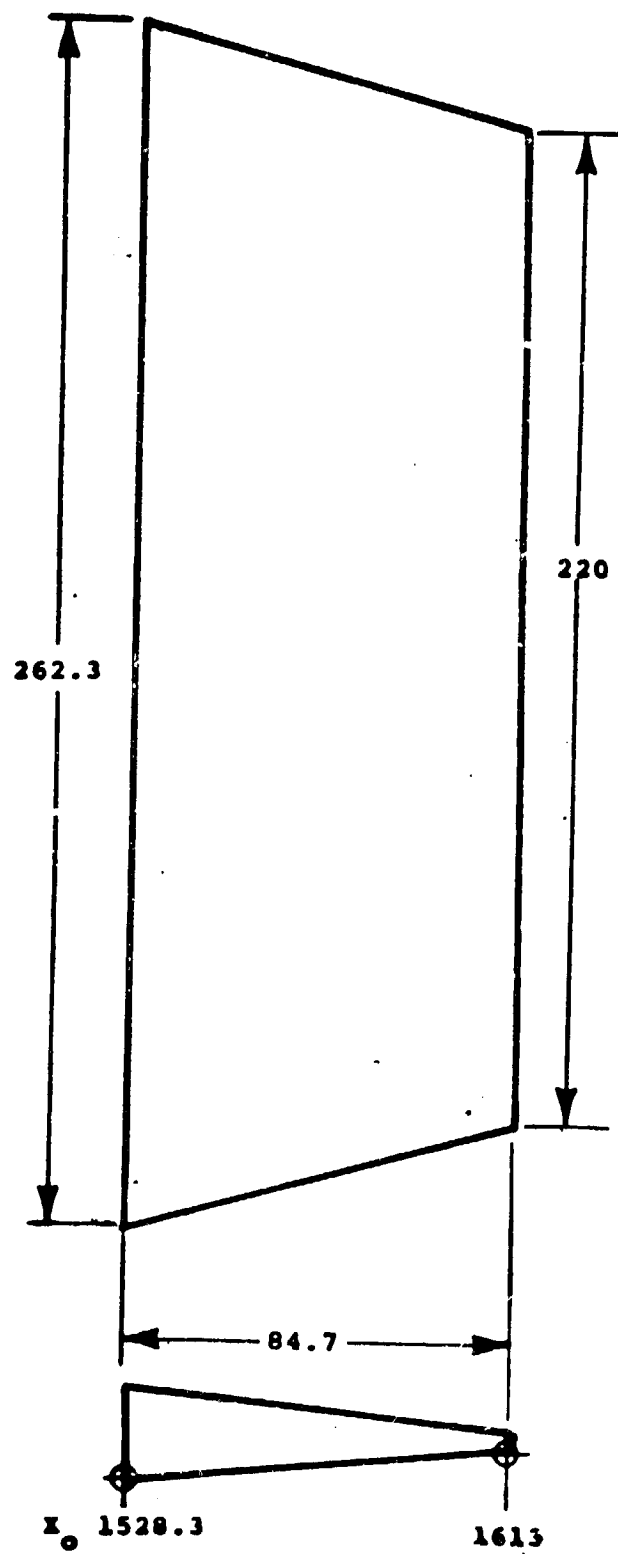


i. Canopy, Cg. and body, B<sub>26</sub>, lines drawing VL70-00193 and VL70-000140A/B

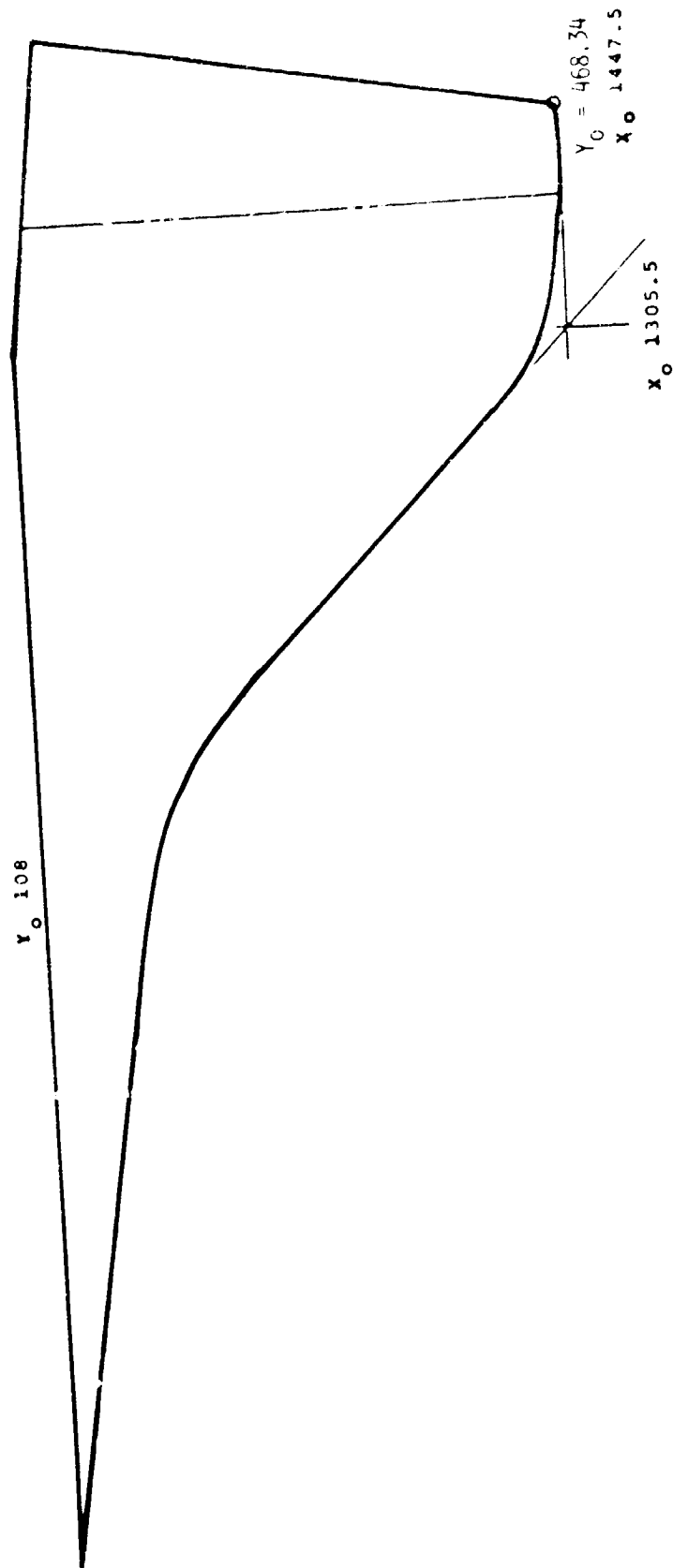
Figure 2. - Continued





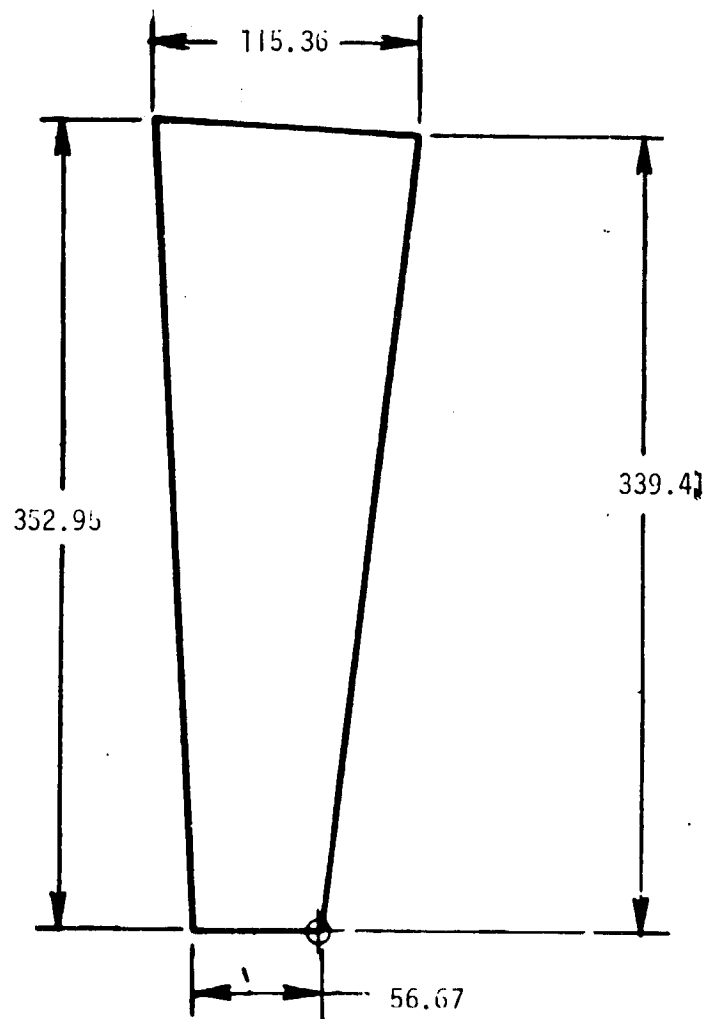


k. Body flap,  $F_g$ , lines drawing no. VL70-000140A/B  
Figure 2. - Continued



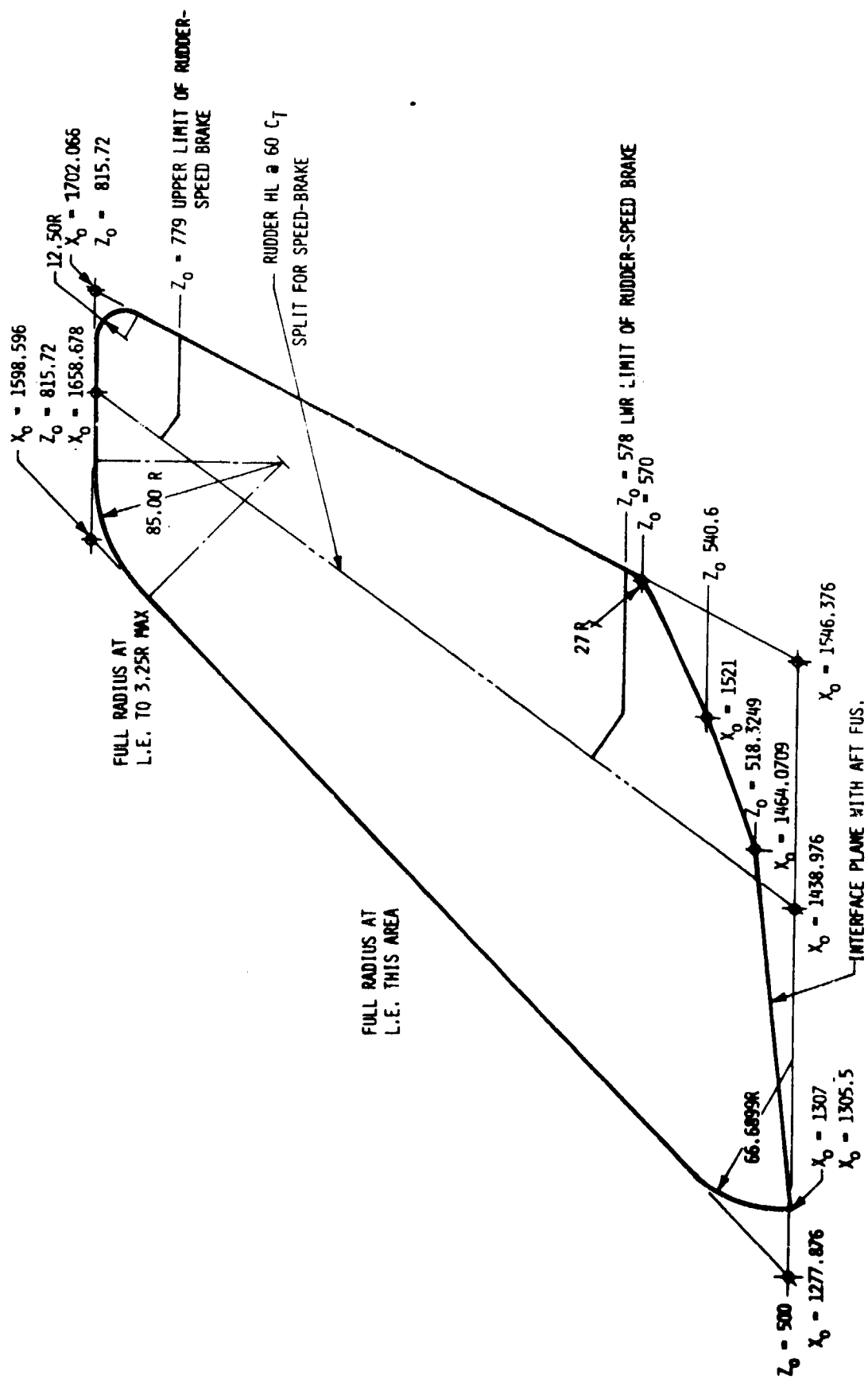
1. Wing, W<sub>116</sub>, lines drawing no. VL70-000200

Figure 2. - Continued



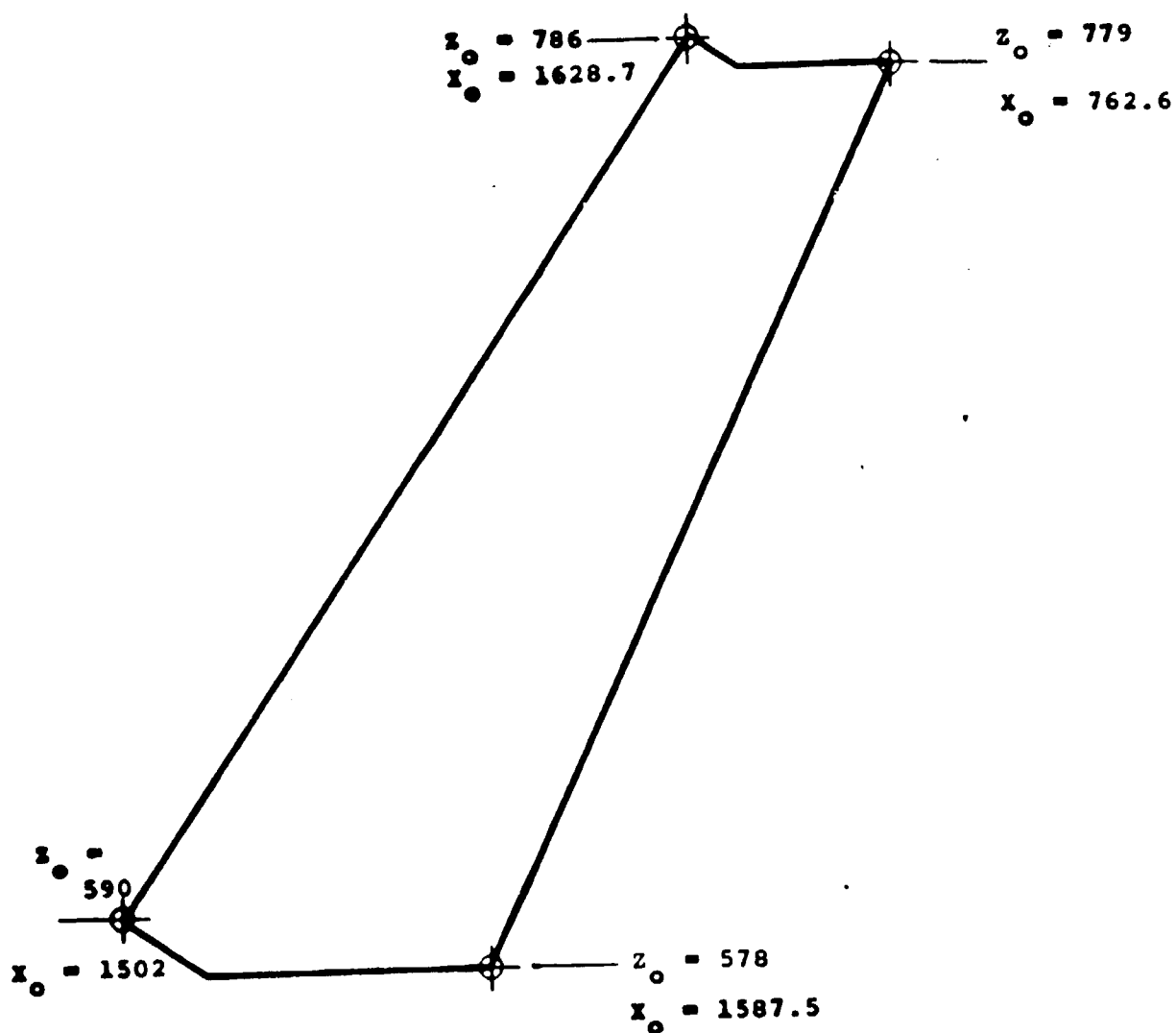
m. Elevon, E<sub>26</sub>, lines drawing no. VL70-000200, VL70-000140A/B

Figure 2. - Continued



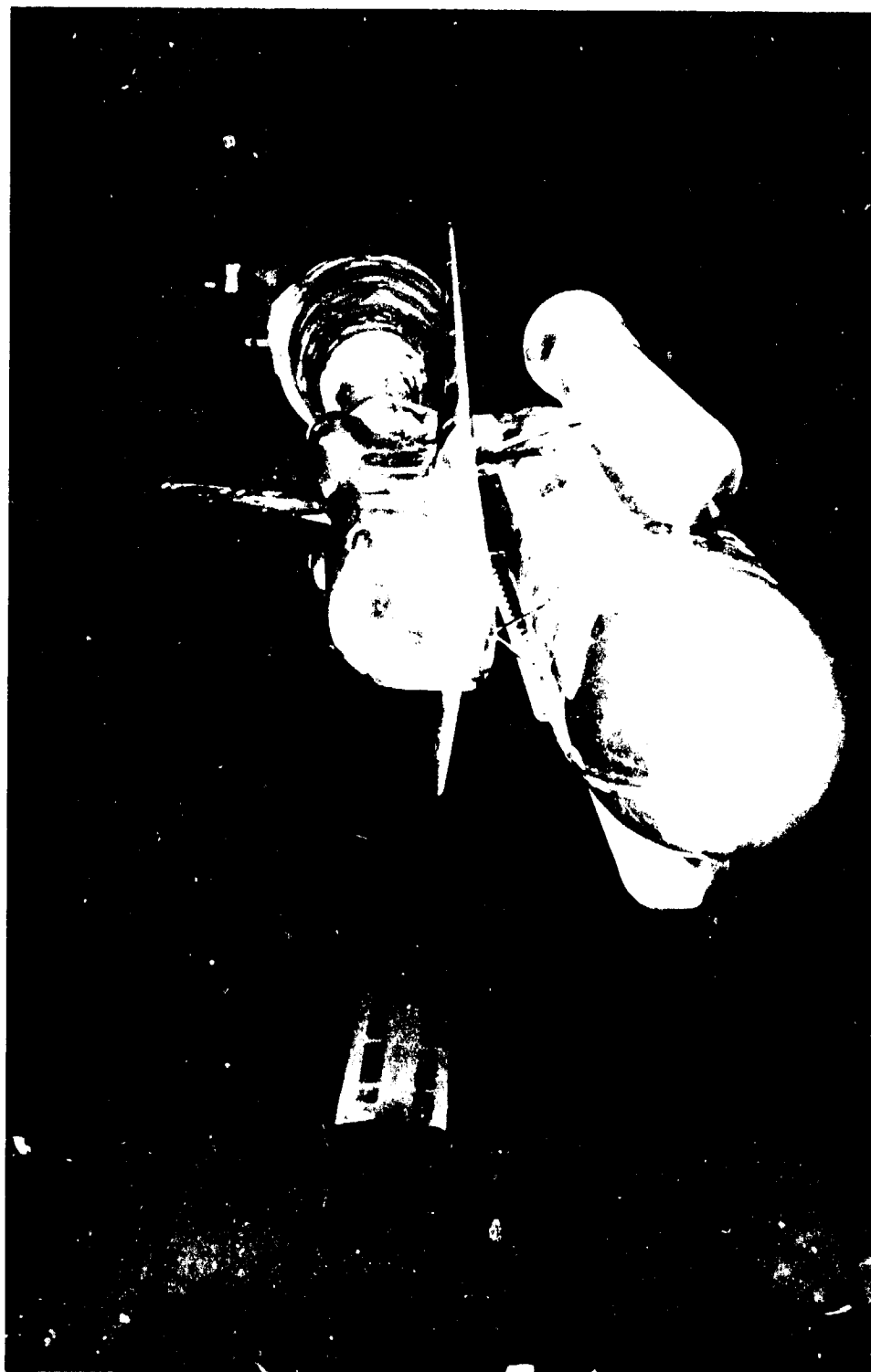
n. Vertical tail,  $V_g$ , and rudder,  $R_5$ , lines drawing no. VL70-000146A

Figure 2. - Continued



o. Rudder, R<sub>5</sub>, lines drawing no. VL70-000095

Figure 2. - Concluded



a. Front view of model installed in tunnel

Figure 3. - Model photographs.



b. Rear view of model installed in tunnel

Figure 3. - Concluded.

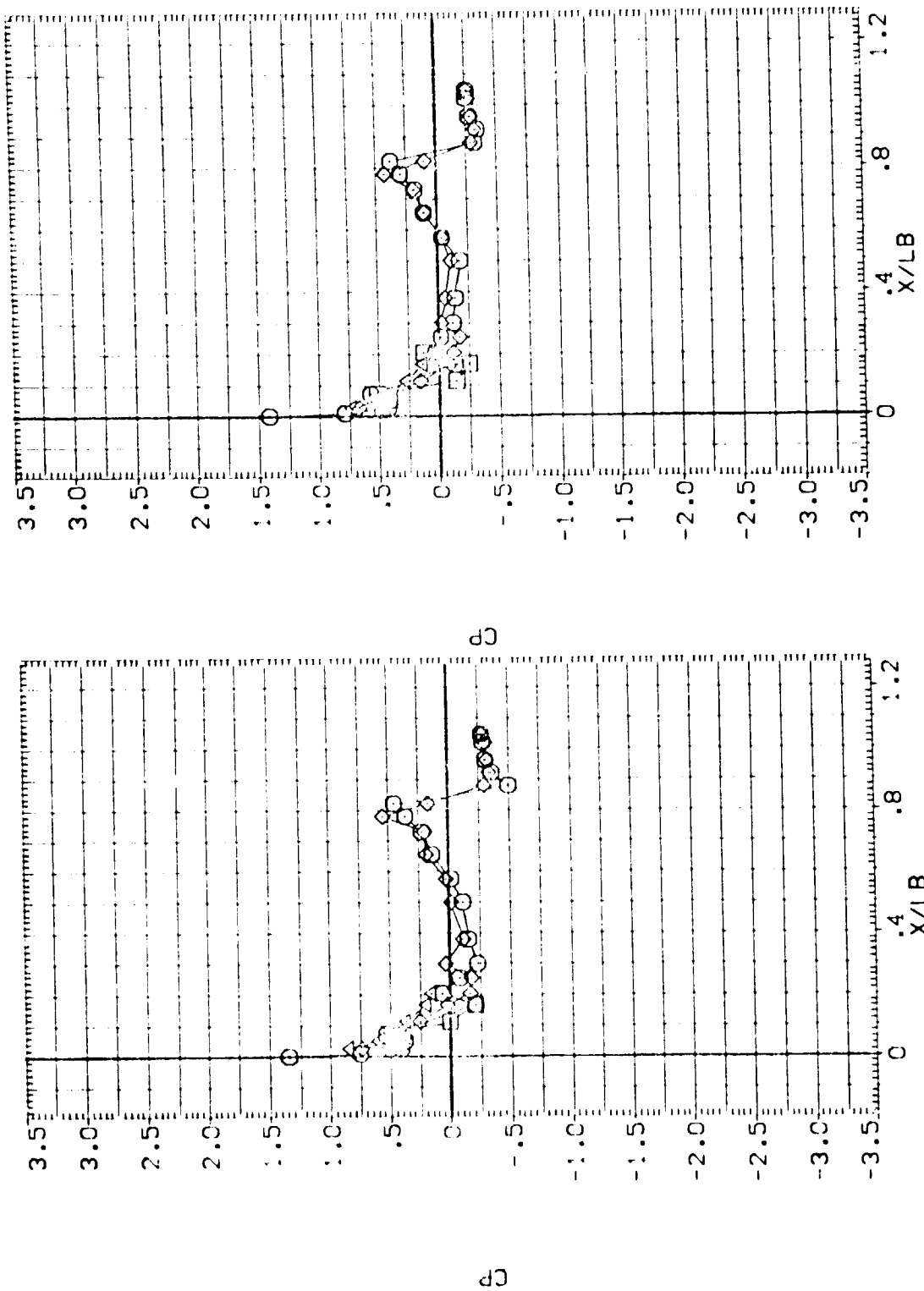


## DATA FIGURES

Note: Correspondence between parameter values and plot grids (multiple grids per page) - first parameter value is presented on left hand grid.

ARC:11-716 1A14 01+112+S12N25+AT10 ORB. FUSELAGE (RB1B33)

SYMBOL	PHI	BETA	ALPHA	MACH	PARAMETRIC VALUES
○	.000	-7.960	-8.240	RUDDER	1.250
◇	20.000	-3.980			.000
△	40.000				ELEVON
□	55.000				SPDBRK
					.000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 ORB. FUSELAGE (RB1B33)

SYMBOL

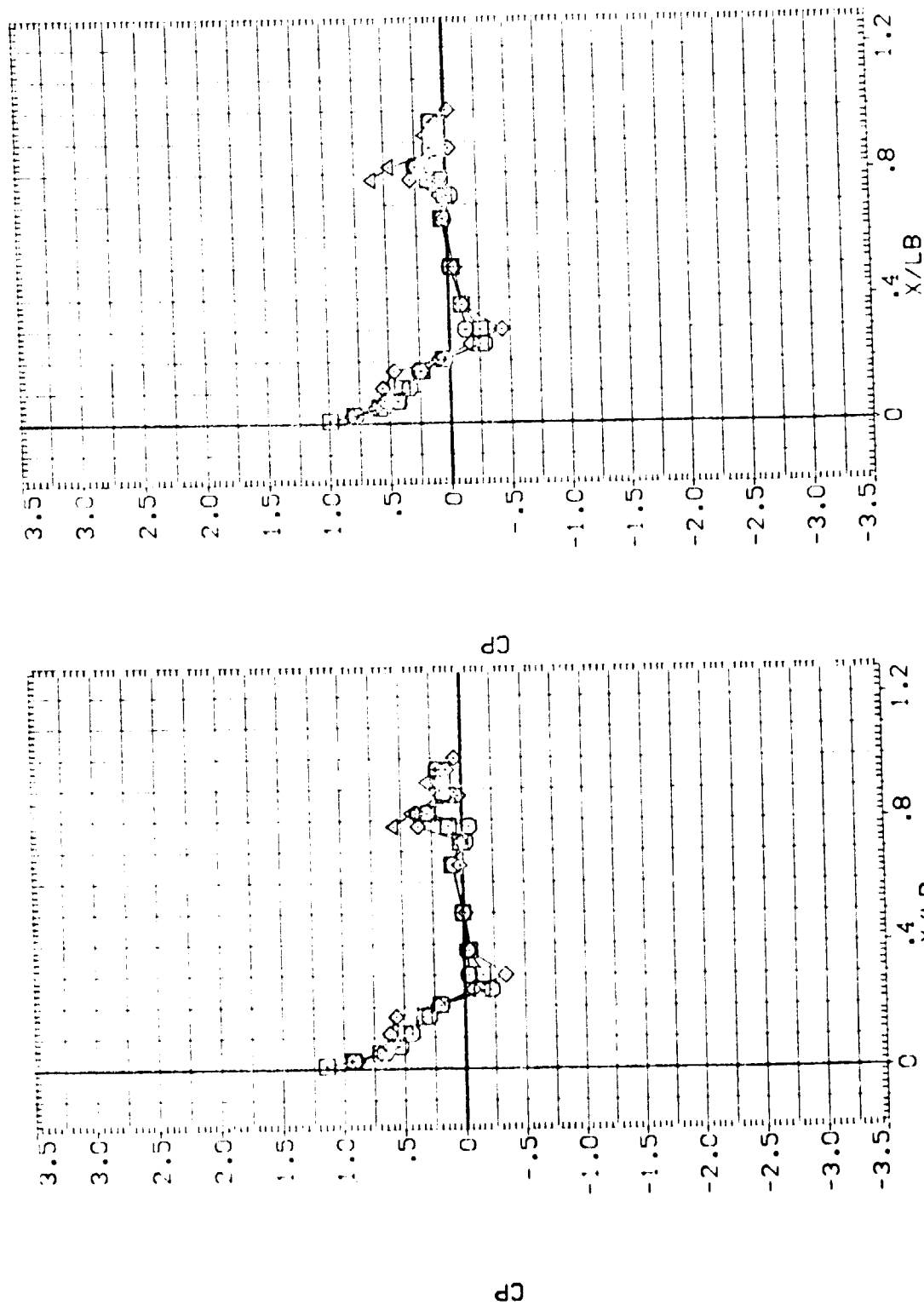
70.000  
90.000  
120.000  
150.000

BETA0  
-7.960  
-3.980

ALPHA0  
-8.240

PARAMETRIC VALUES

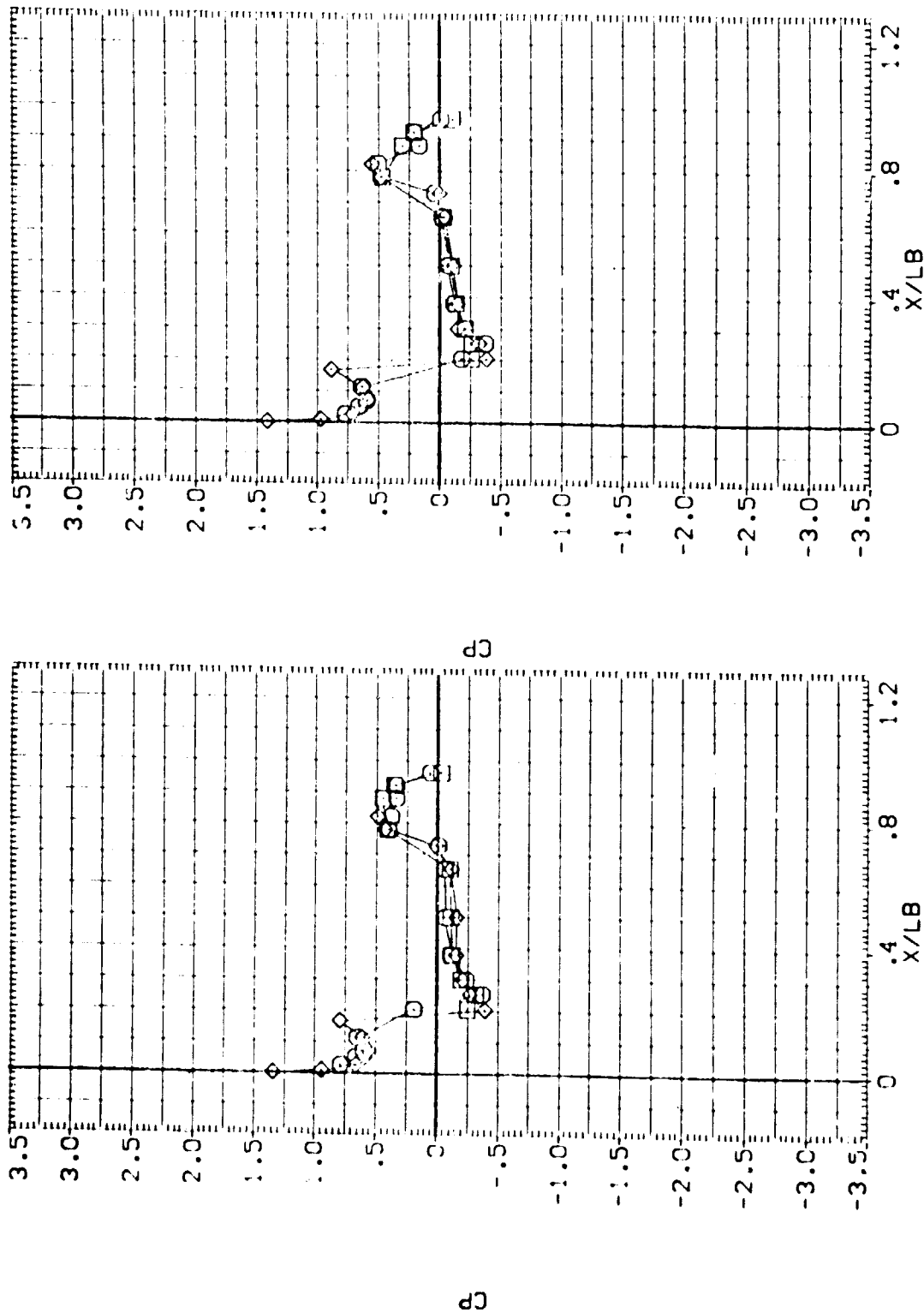
MACH 1.250 ELEVON .000  
RUDDER .000 SP03RM .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 IA14 01+T12+S12N25+AT10 ORB. FUSELAGE (RB1B33)

SYMBOL	PHI	BETAC	ALPHAB	PARAMETRIC VALUES		
○	150.000	-7.960	-8.240	MACH	1.250	ELEVON
—	165.000	-3.980		RUDDER	.000	SPDRK
◇	180.000					.000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-016 [A14 01+T12+S12N25+AT10 ORB. FUSELAGE (RB1B33)]

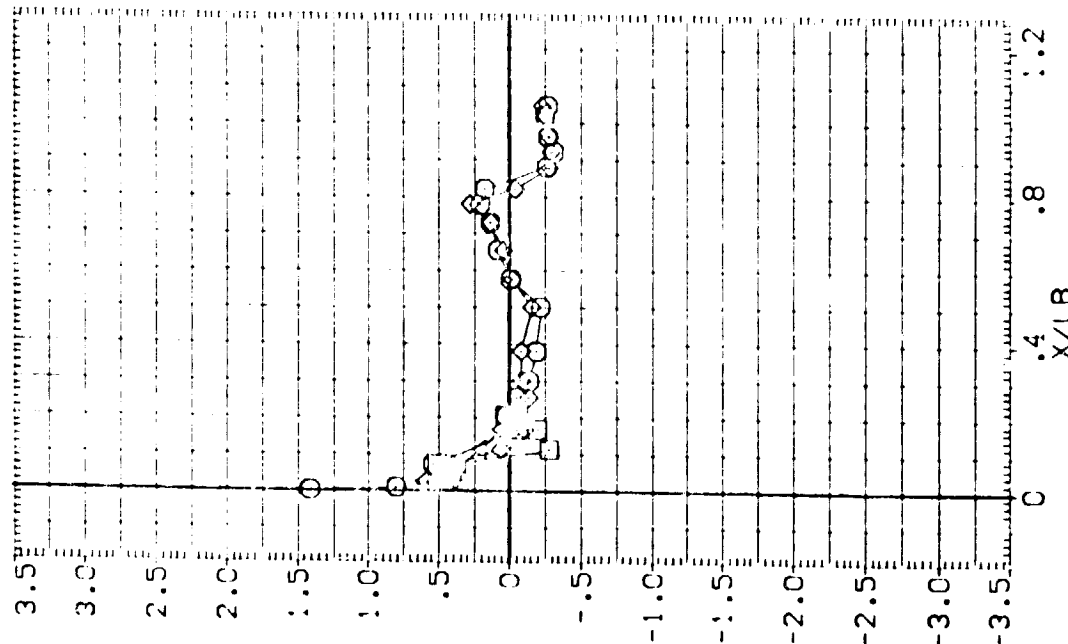
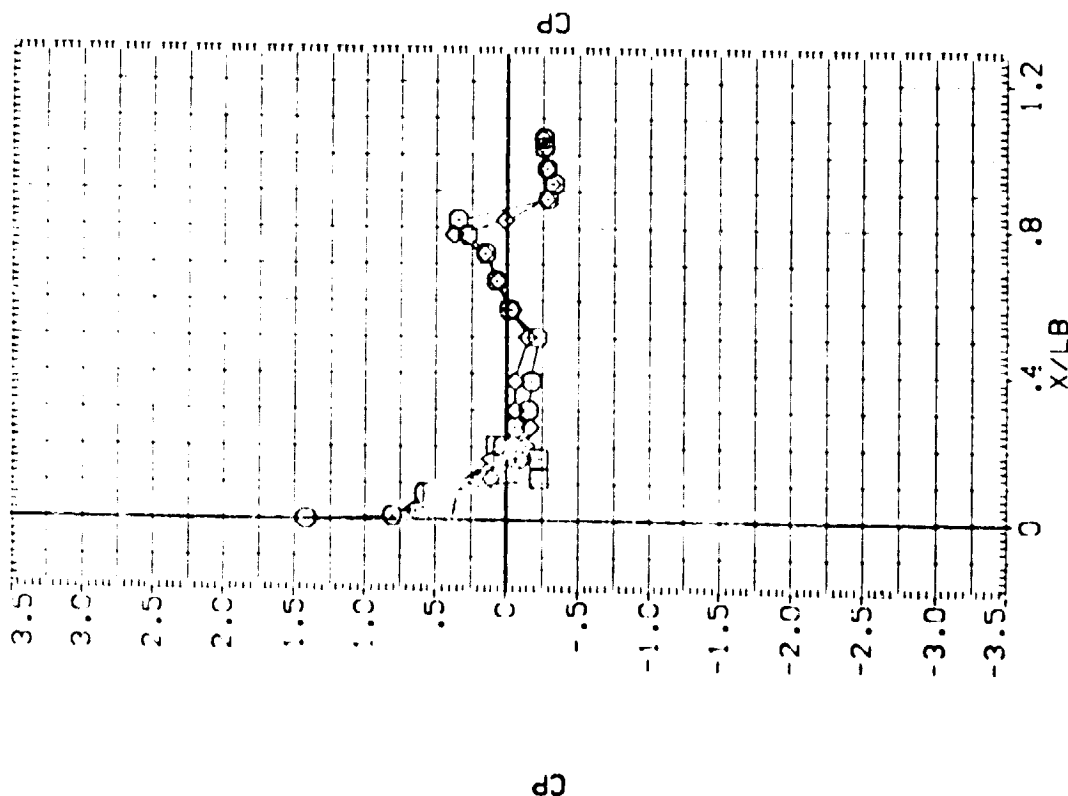
SYMBOL

PHI  
0.000  
20.000  
40.000  
55.000

BETA0  
-1.990  
0.010

ALPHA0  
-8.250

PARAMETRIC VALUES  
MACH 1.250 ELEVON .000  
RUDDER .000 SPOBRK .000



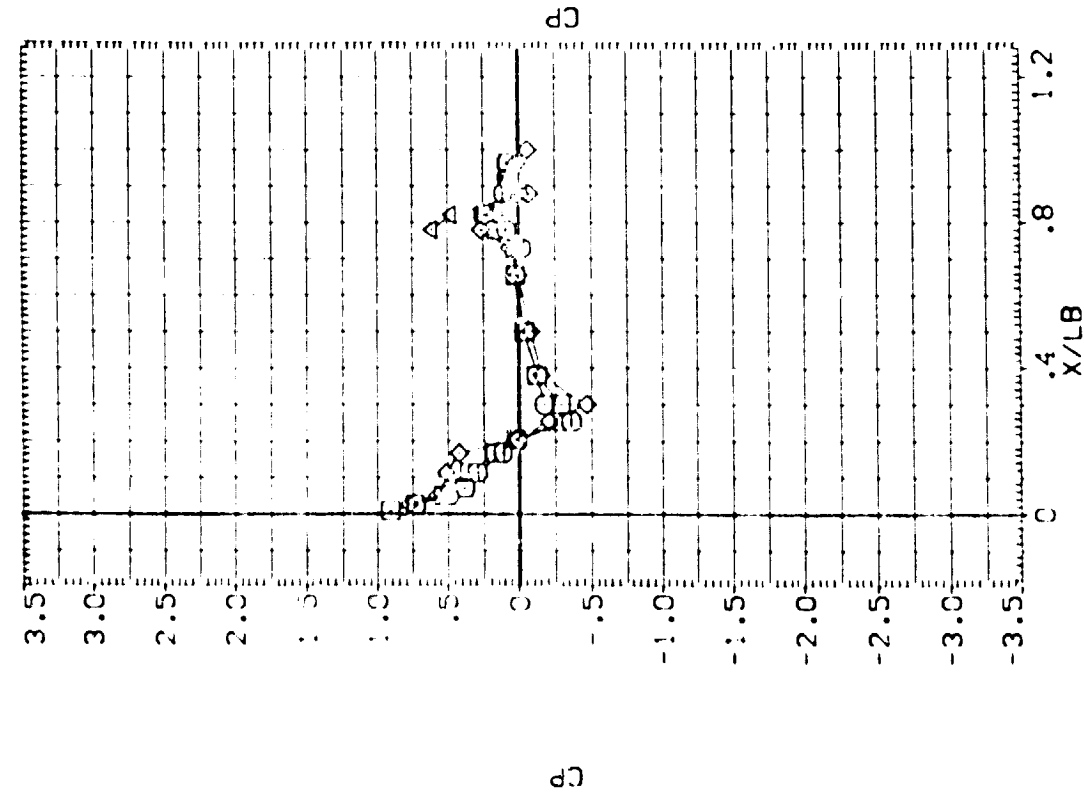
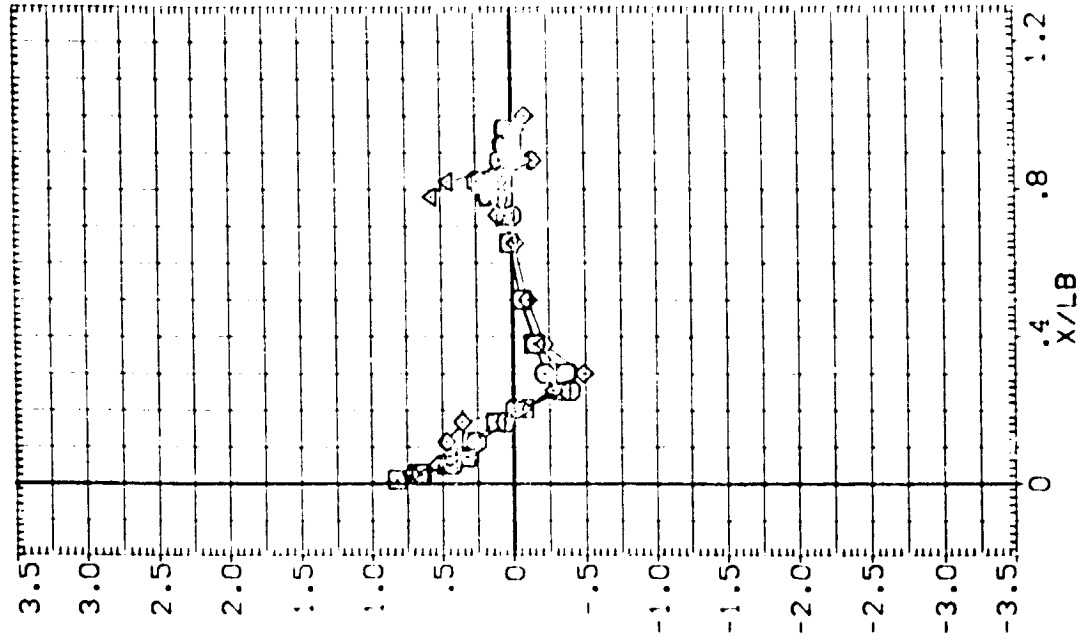
LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC: 016 1A14 01+T12+S12N25+AT10 3RB. FUSELAGE (RB1B33)

PARAMETRIC VALUES  
 MACH 1.250 ELEVATION .000  
 RUDDER .000 SPDRX .000

SYMBOL  
 70.000  
 90.000  
 120.000  
 135.000

70.000  
 90.000  
 120.000  
 135.000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC:-716 1A14 01+T12+S12N25+AT10 ORB. FUSELAGE (RB1B33)

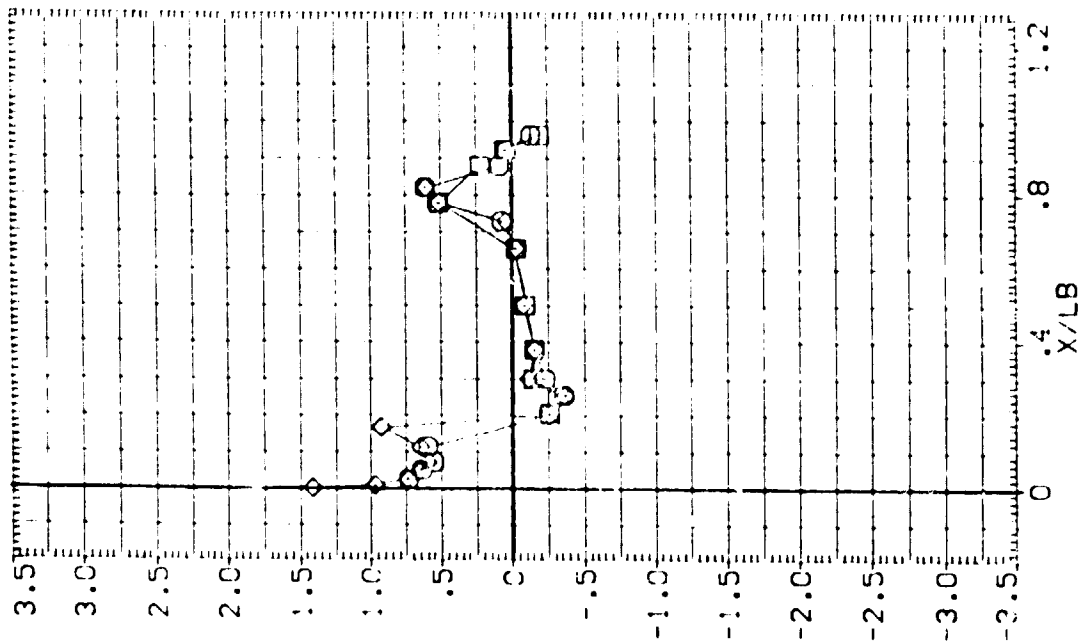
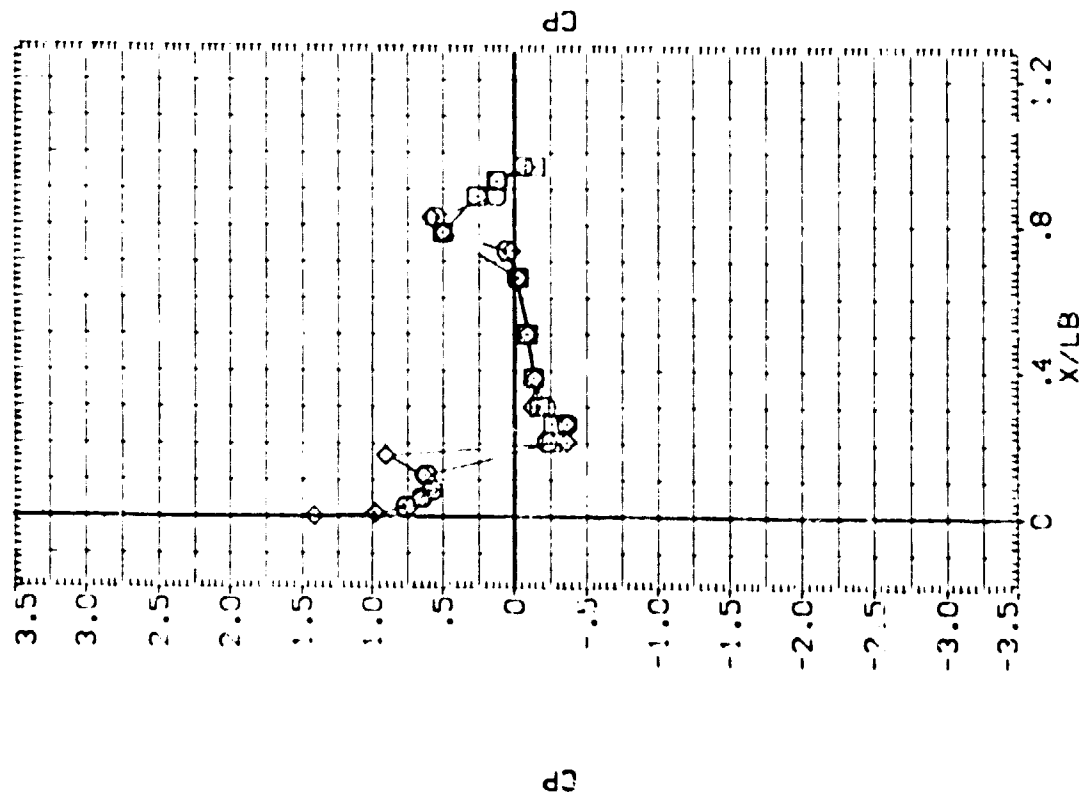
SYMBOL

PHI 150.000  
165.000  
180.000

BETA0 -1.950  
ALPHA0 -8.250  
0.00

PARAMETRIC VALUES

MACH 1.250 ELEVON .000  
RUDDER .000 SPORRY .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 ORB. FUSELAGE (RB1B33)

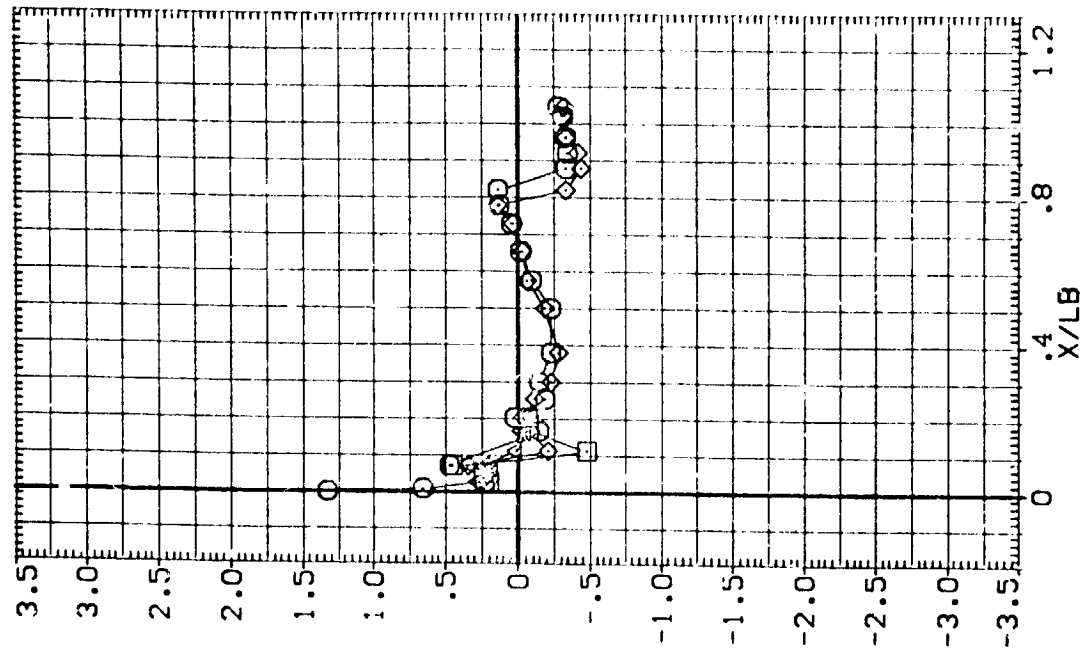
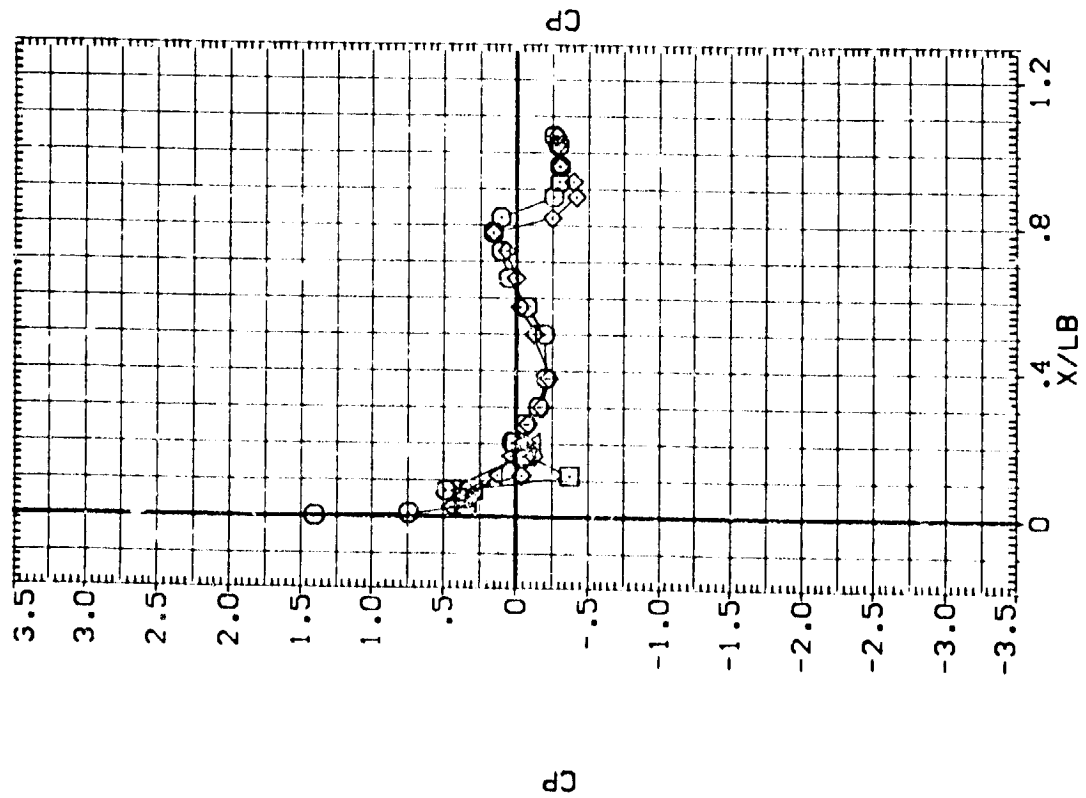
SYMBOL  
 ○ □ ◇ △

PHI  
 .000  
 20.000  
 40.000  
 55.000

ETA0  
 4.040  
 8.100

ALPHA0  
 -8.230

PARAMETRIC VALUES  
 MACH 1.000  
 RUDDER .000  
 ELEVON .000  
 SPOBRK .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES



ARC11-716 IA14 01+T12+S12N25+AT10 ORB. FUSELAGE (RB1B33)

SYMBOL

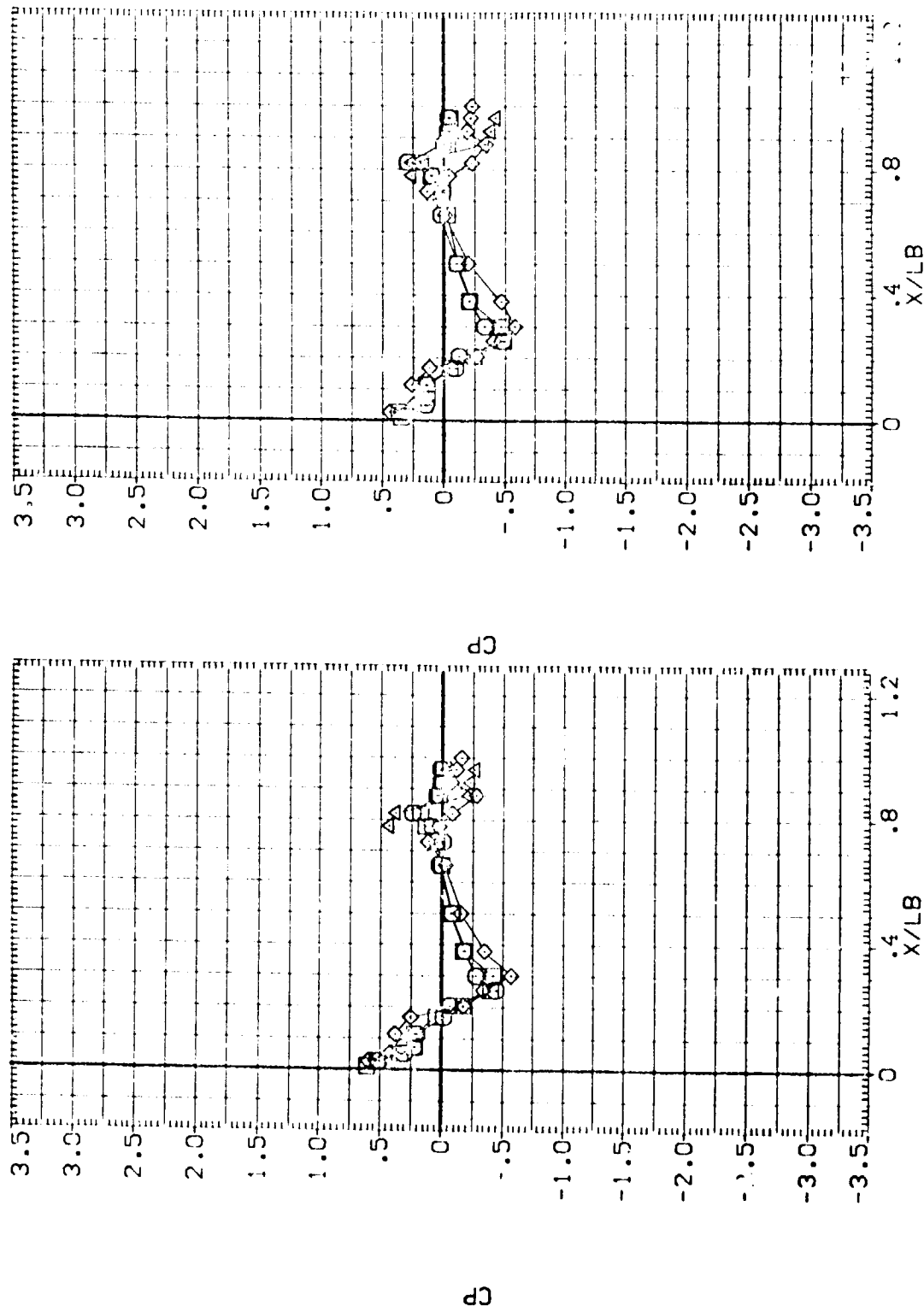
PHI 70.000  
90.000  
120.000  
135.000

BETA 4.040  
8.100

ALPHA 0  
-8.230

MACH 1.250  
RUDDER .000  
ELEVON .000  
SPOILER .000

PARAMETRIC VALUES



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC:1-7:6 1A14 01+T12+S12N25+AT10 ORB. FUSELAGE (R31B33)

SYMBOL  
 O  
 I  
 ◇

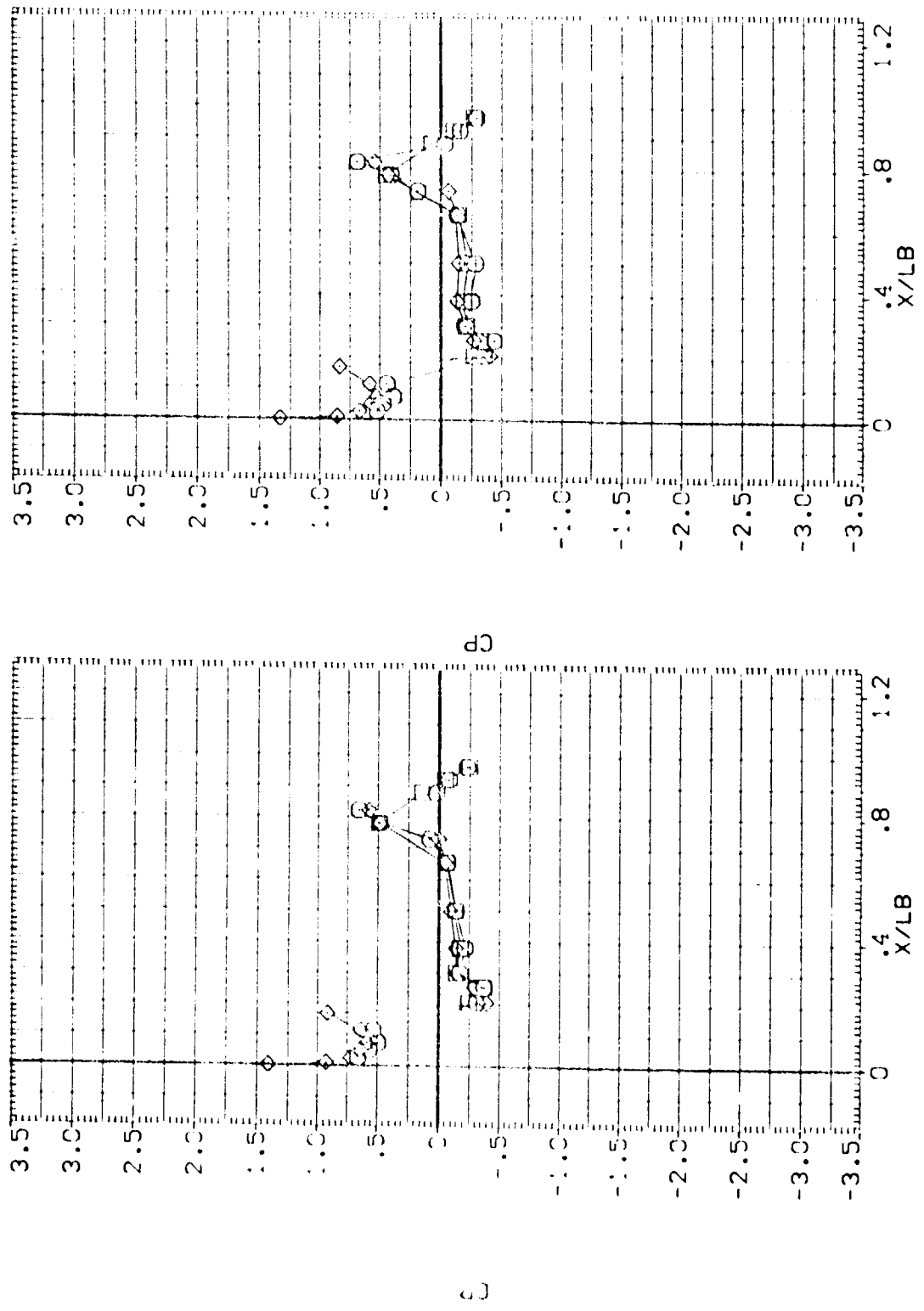
PHI  
 150.000  
 155.000  
 160.000

BETAG  
 4.040  
 8.100

ALPHA  
 -8.230

MACH  
 RUDDER

PARAMETRIC VALUES  
 1.250  
 .000  
 ELEVON  
 SPOBRK  
 .000  
 .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 IA14 01+T12+S12N25+AT10 CRB. FUSELAGE (RB1B33)

SYMBOL  
○ □ △

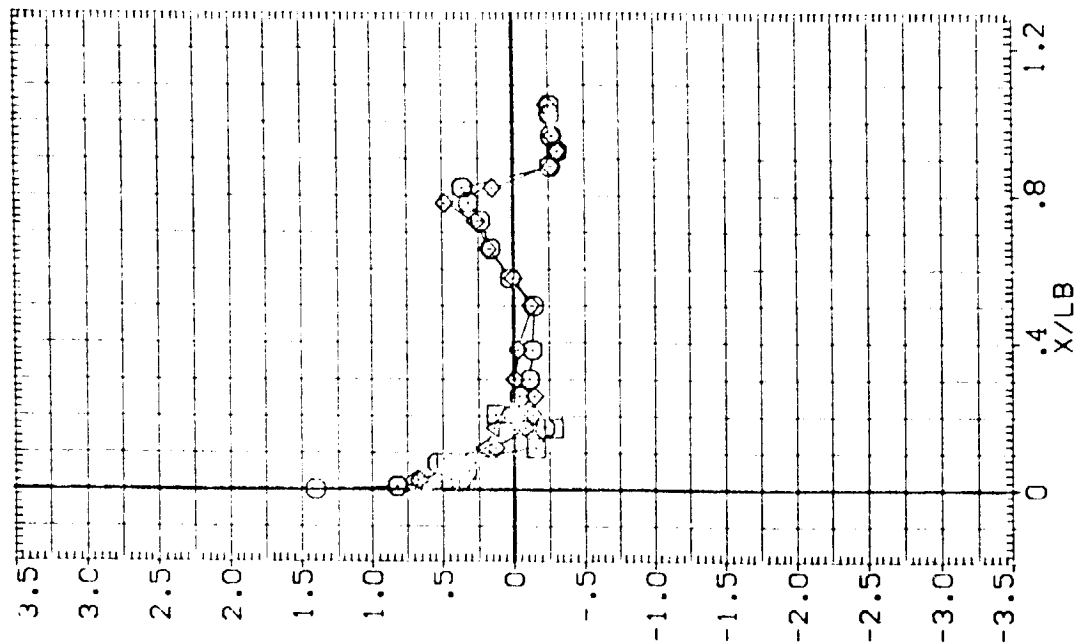
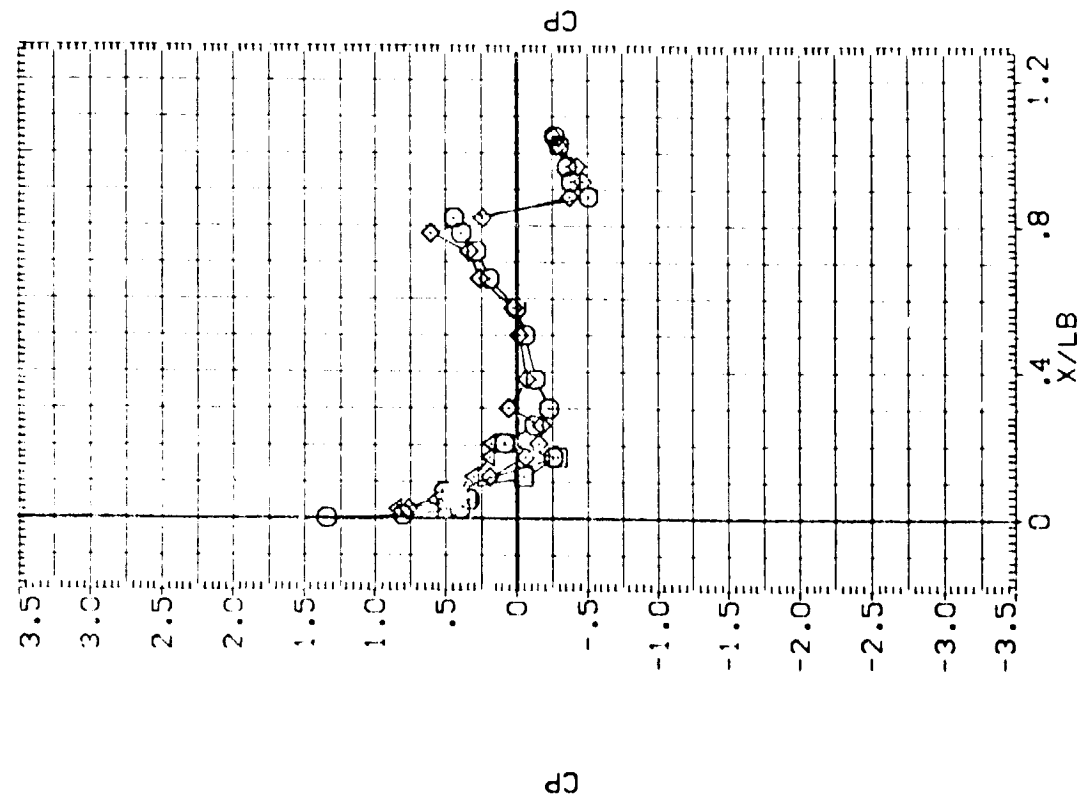
PHI .000  
20.000  
40.000  
55.000

BETA0  
-7.990  
-3.950

ALPHA0  
-4.230

MACH  
RUDDER

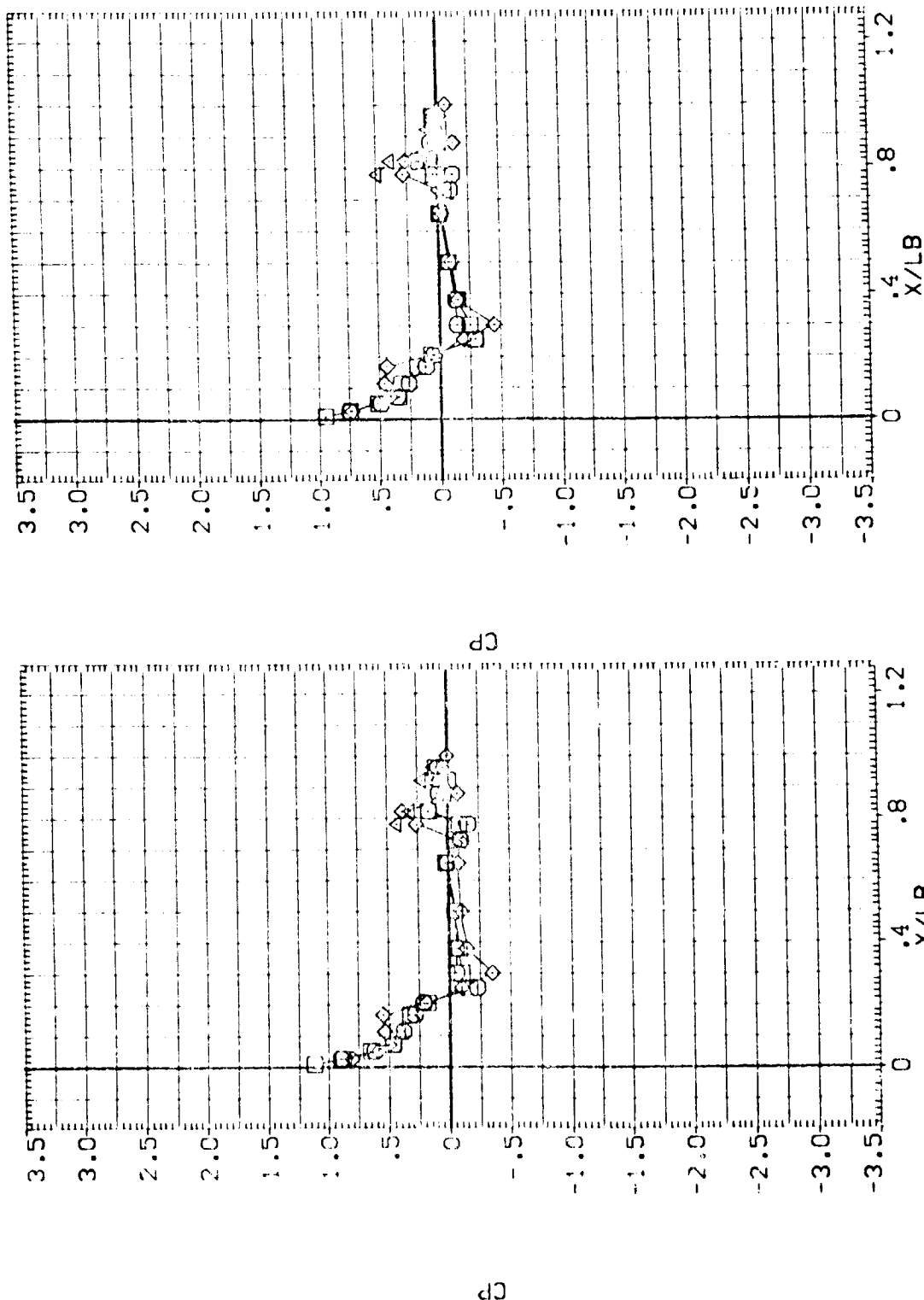
PARAMETRIC VALUES  
1.250 ELEVON  
.000 SPOBRK



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 ORB. FUSELAGE (RB1B33)

SYMBOL	PHI	BETA	ALPHA	PARAMETRIC VALUES		
				MACH	ELEVON	SPDRK
○	70.000	-7.990	-4.230	1.250	.000	.000
□	90.000	-3.950		.000		
◇	120.000					
△	135.000					

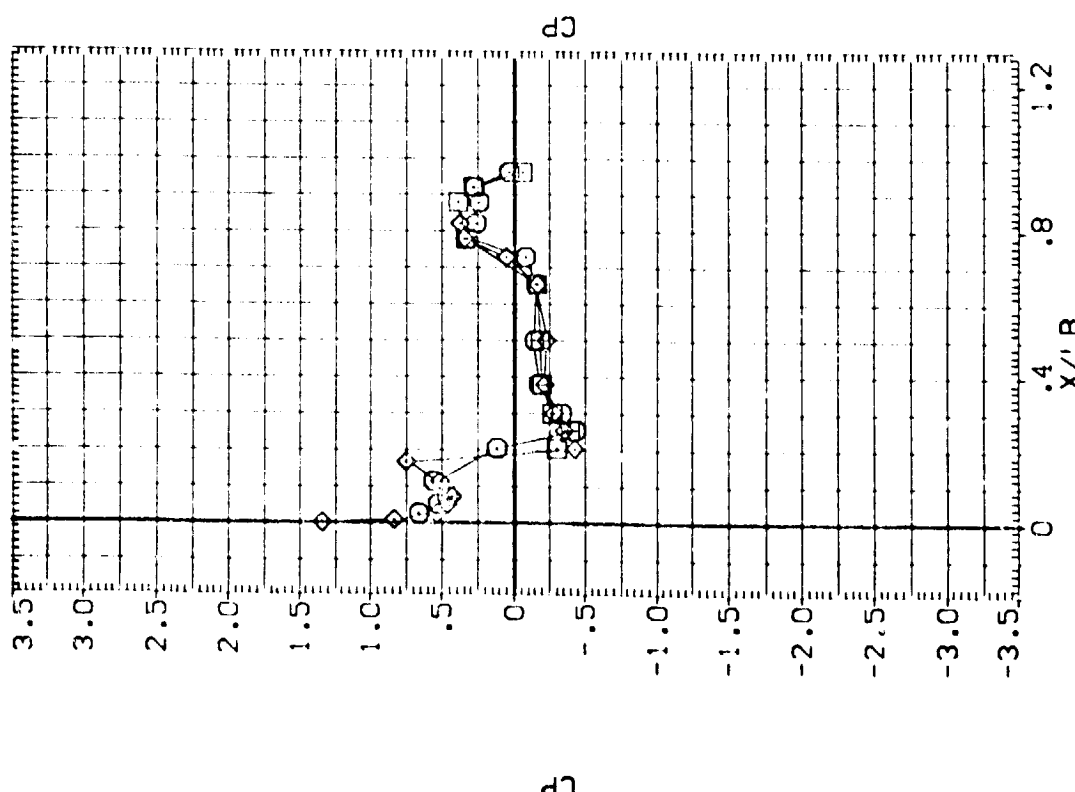
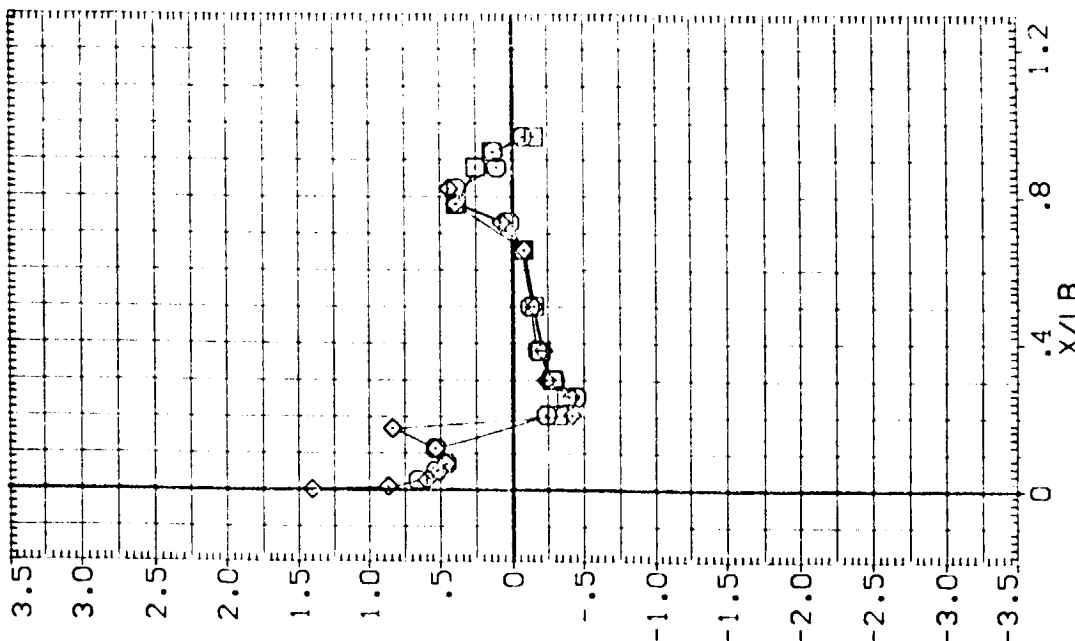


LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 ORB. FUSELAGE (RB1B33)

SYMBOL  
 ○  
 □  
 ◇

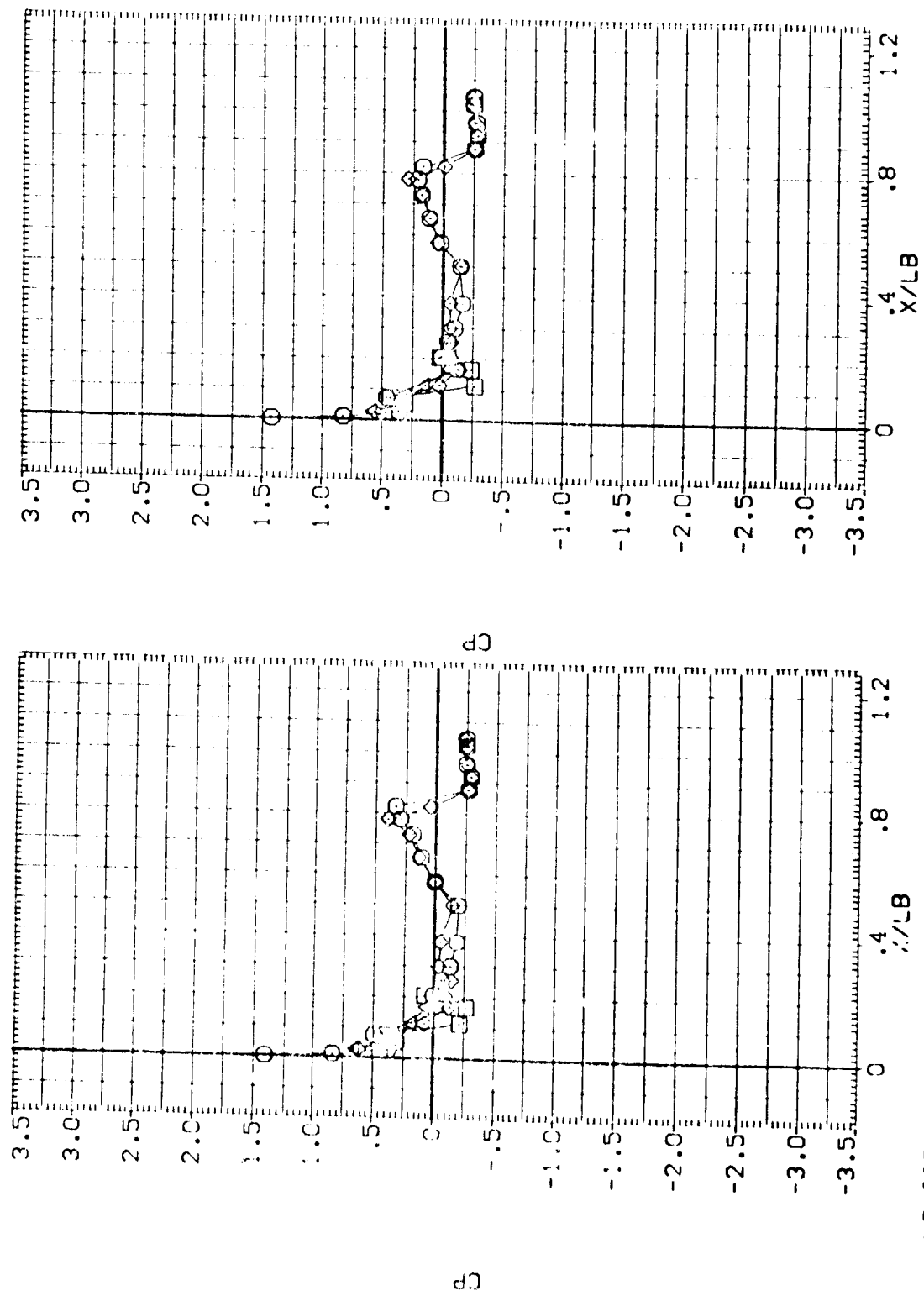
PARAMETRIC VALUES  
 MACH 1.250  
 RUDDER .000  
 ELEVON .000  
 SPOILER .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 IA14 01-T12+S12N25+AT10 ORB. FUSELAGE (RB1B33)

SYMBOL	PHI	BETA	ALPHA	PARAMETRIC VALUES		
				MACH	ELEVON	SPOBRK
○	.000	-2.020	-4.150	1.250	.000	.000
◇	20.000	-1.010				
△	40.000					
	55.000					



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

# ARC11-716 1A14 01+T12+S12N25+AT10 ORB. FUSELAGE (R91BJ3)

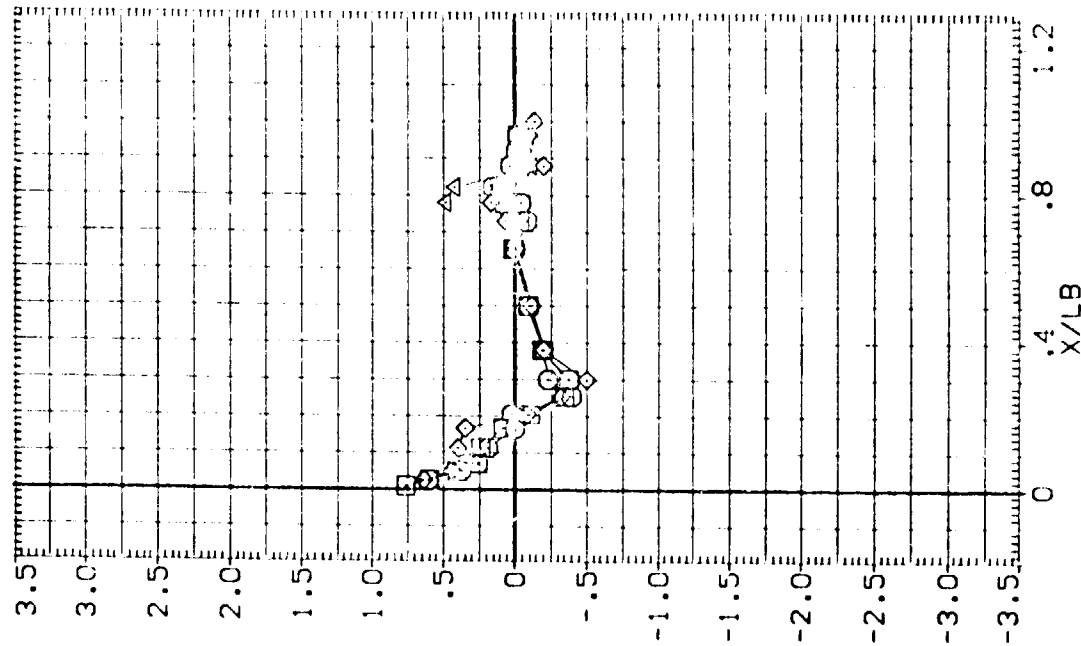
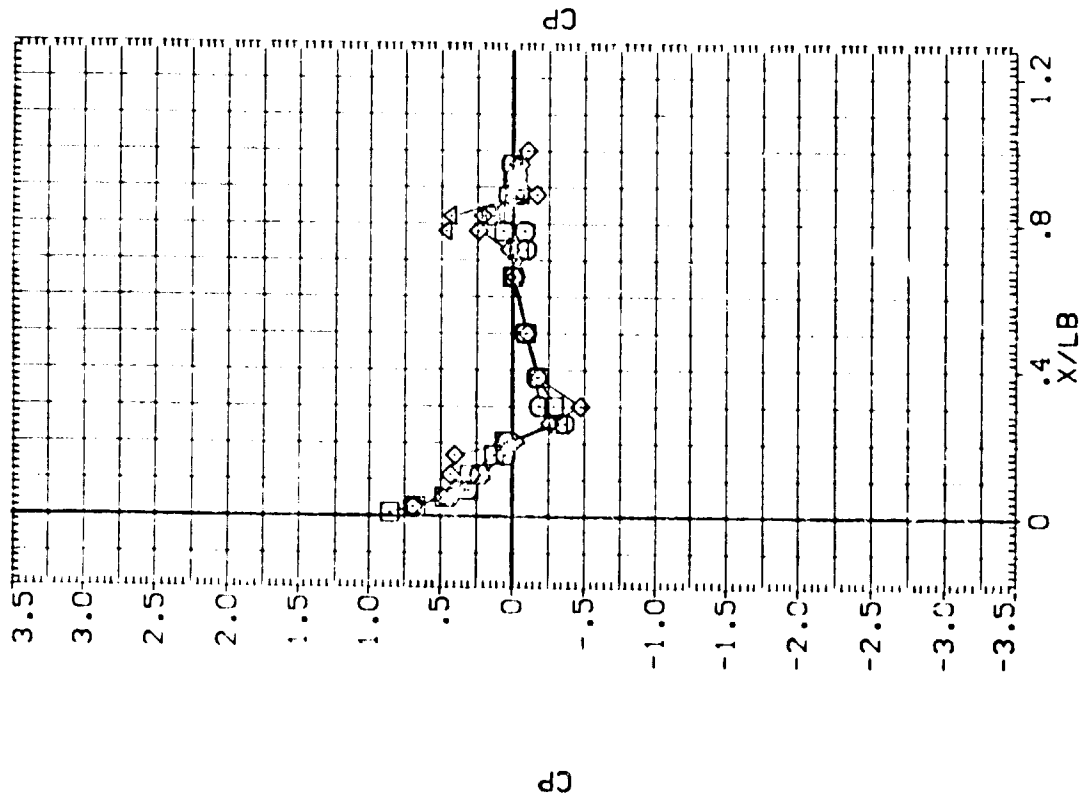
SYMBOL  
 O  
 ◇  
 △

PHI  
 70.000  
 90.000  
 120.000  
 135.000

BETA0  
 -2.020  
 -.010

ALPHA0  
 -4.150

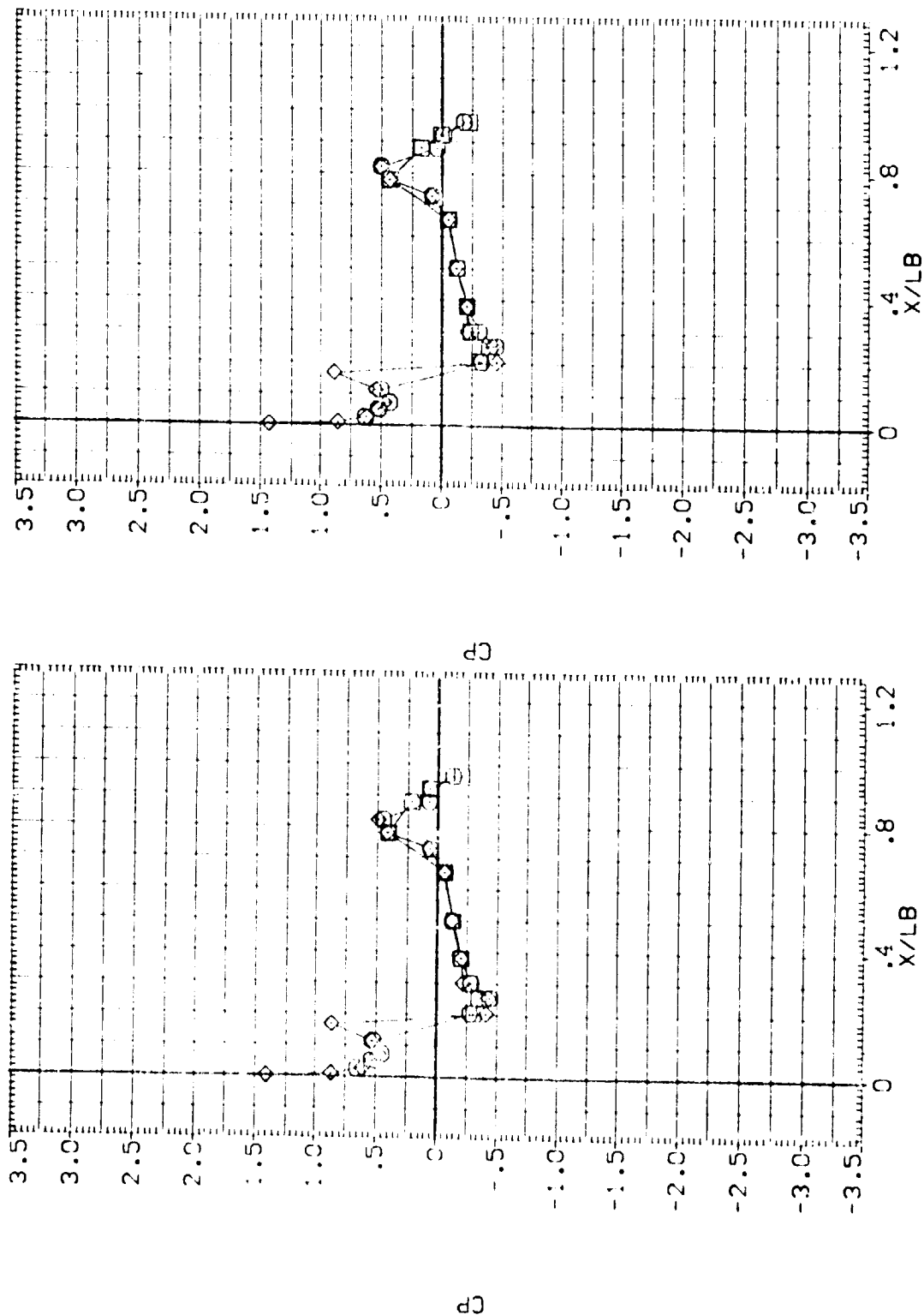
PARAMETRIC VALUES  
 MACH 1.250  
 RUDDER .000  
 ELEVON .000  
 SPOBRK .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC1:-716 1A14 01+T12+S12N25+AT10 ORB. FUSELAGE (RB1B33)

SYMBOL	PHI	BETA0	ALPHA0	PARAMETRIC VALUES		
○	150.000	-2.020	-4.150	MACH	1.250	ELEVON
□	165.000	-3.010		RUDER	.000	SPDRK
◇	180.000					.000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES



ARC11-716 1A14 01+112+S12N25+AT10 ORB. FUSELAGE (RB1333)

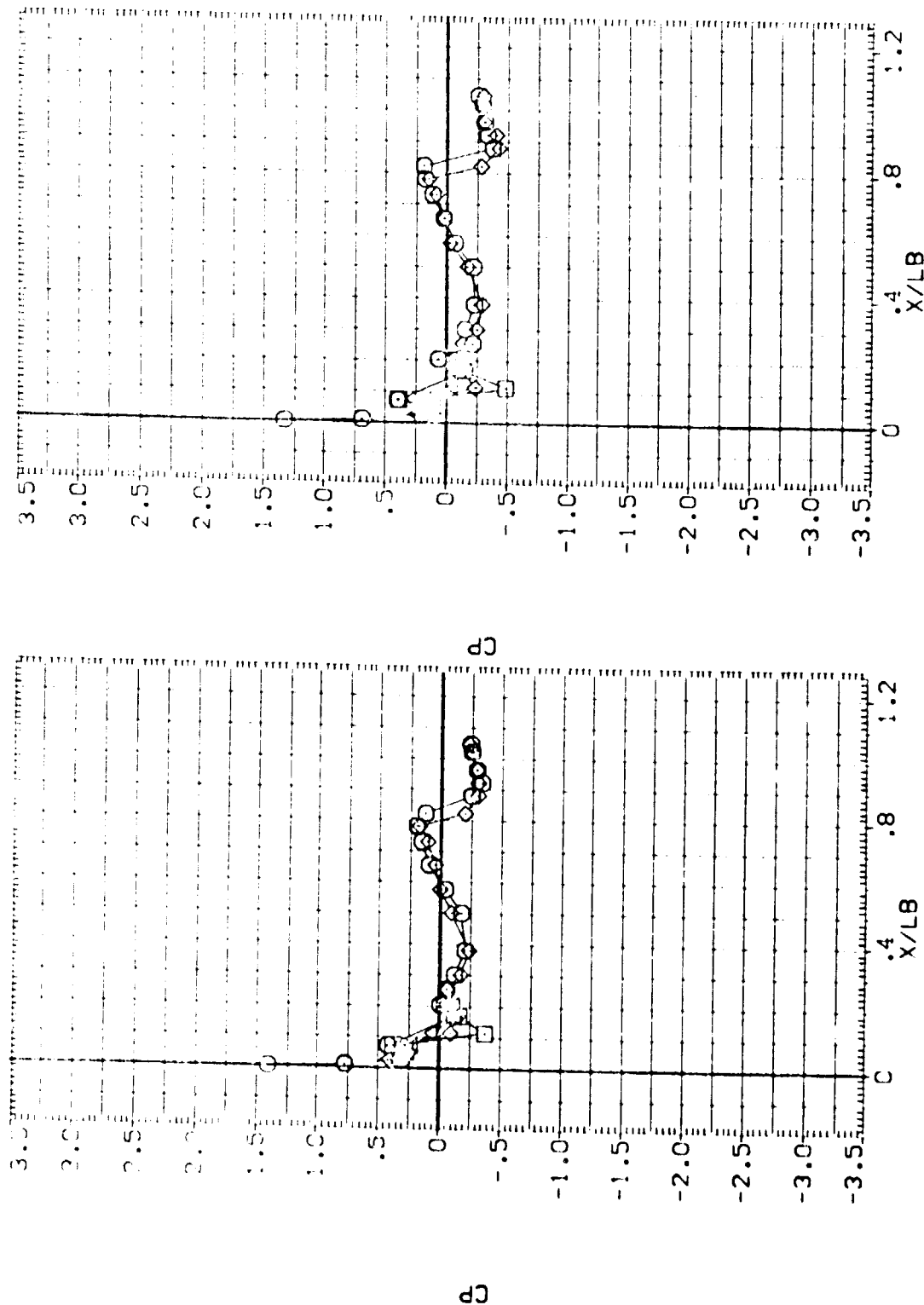
SP-600

PHI .000  
20.000  
40.000  
55.000

BETAC 4.090  
8.080

ALPHA0 -4.200

PARAMETRIC VALUES  
MACH 1.250  
ELEVON .000  
RUDDER .000  
SPOILER .000

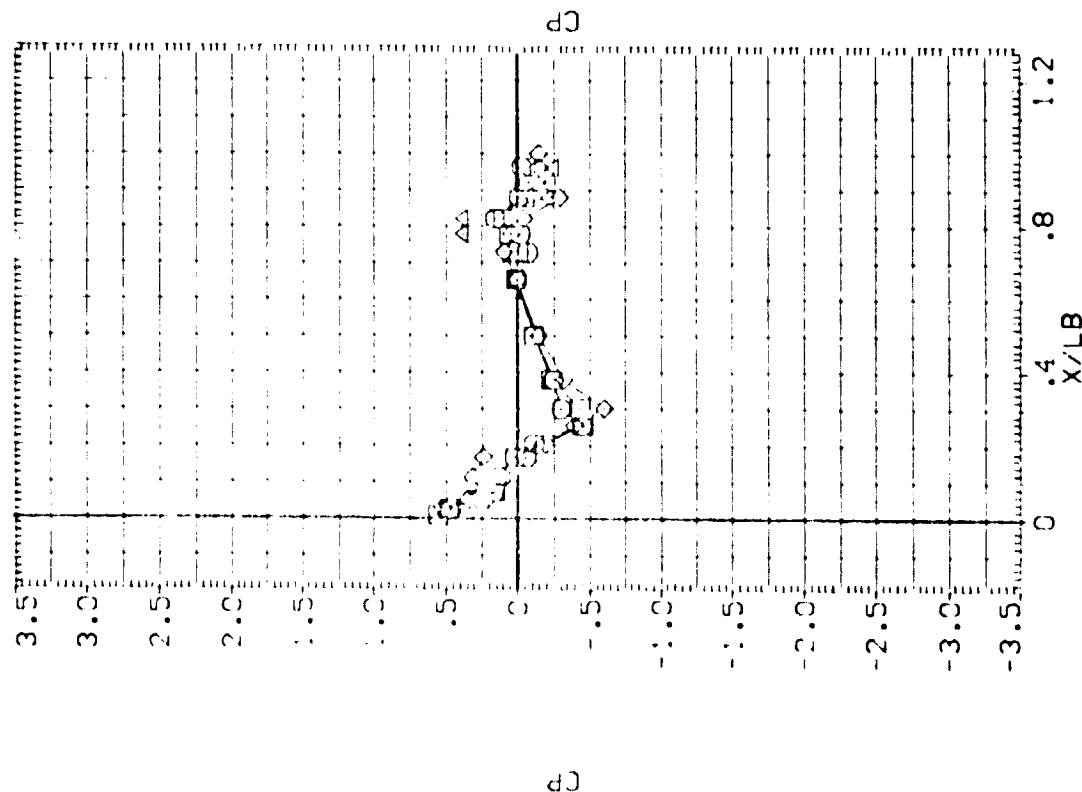
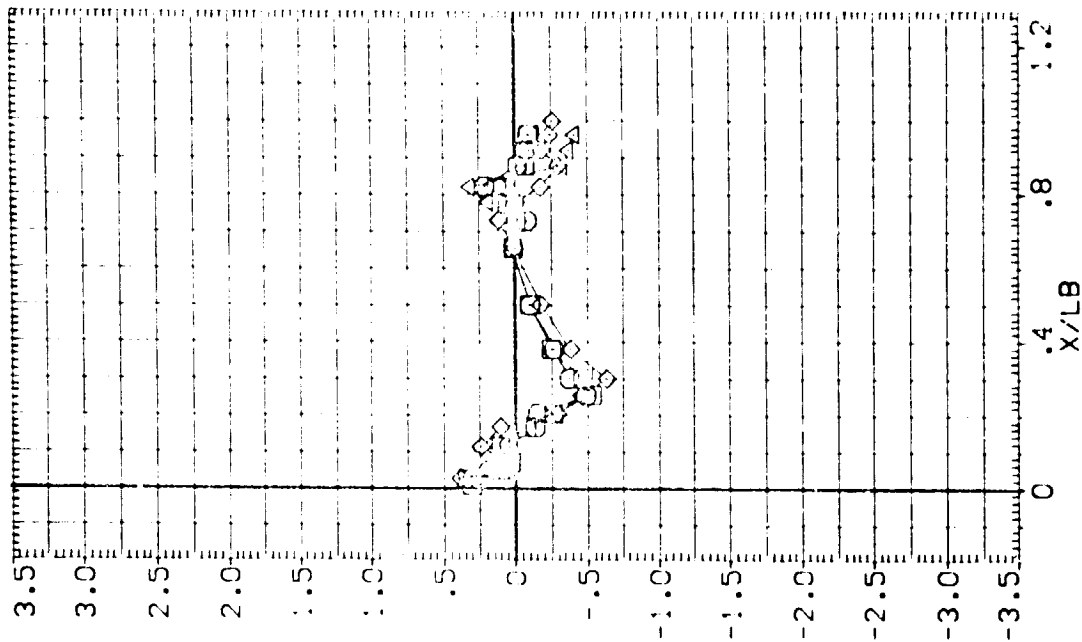


LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 IA14 01+T12+S12N25+AT10 ORB. FUSELAGE (RB1B33)

PARAMETRIC VALUES  
MACH 1.250 ELEVON .000  
RUDDER .000 SPOILER .000

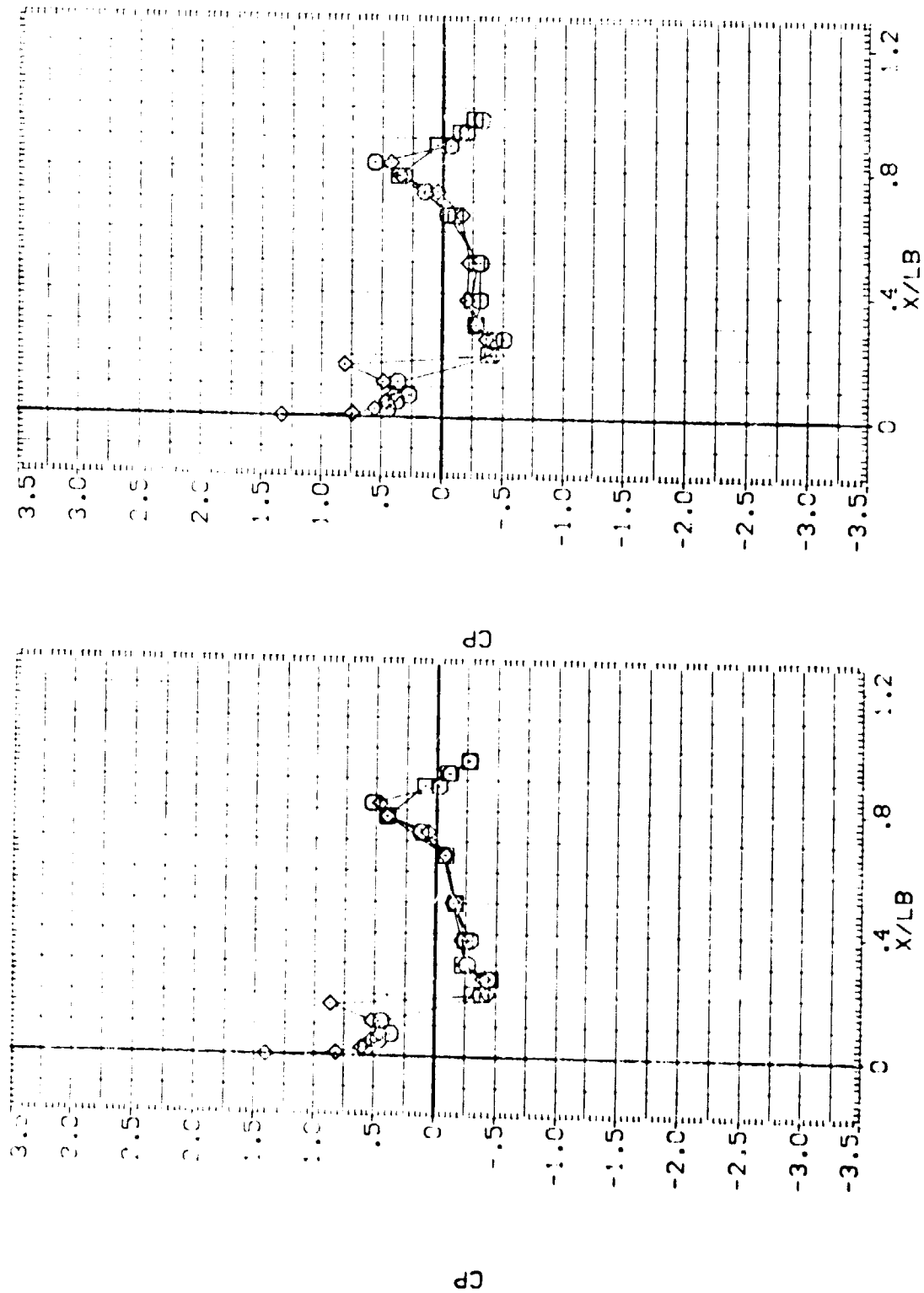
SYMBOL P1 BETAC ALPHA0  
O 70.000 4.090 -4.200  
□ 90.770 8.080  
◇ 120.000  
△ 135.000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC: 1-716 1A14 31+1:2+S12^25+AT10 CR3. FUSELAGE (RB1333)

SYMBOL	PR1	BETA0	ALPHA0	MACH	PARAMETRIC VALUES
○	150.000	4.090	-4.200	RUDDER	1.250 ELEVON
◇	155.000	8.380			.000 SPOON
◇	160.000				.000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC:-7.6 1A14 01+112+S12N25+AT10 CRB. FUSELAGE (RB1B33)

SYMBOL

PR1 BETA0 ALPHA0

.000 -8.420 -.730

20.000 -4.140

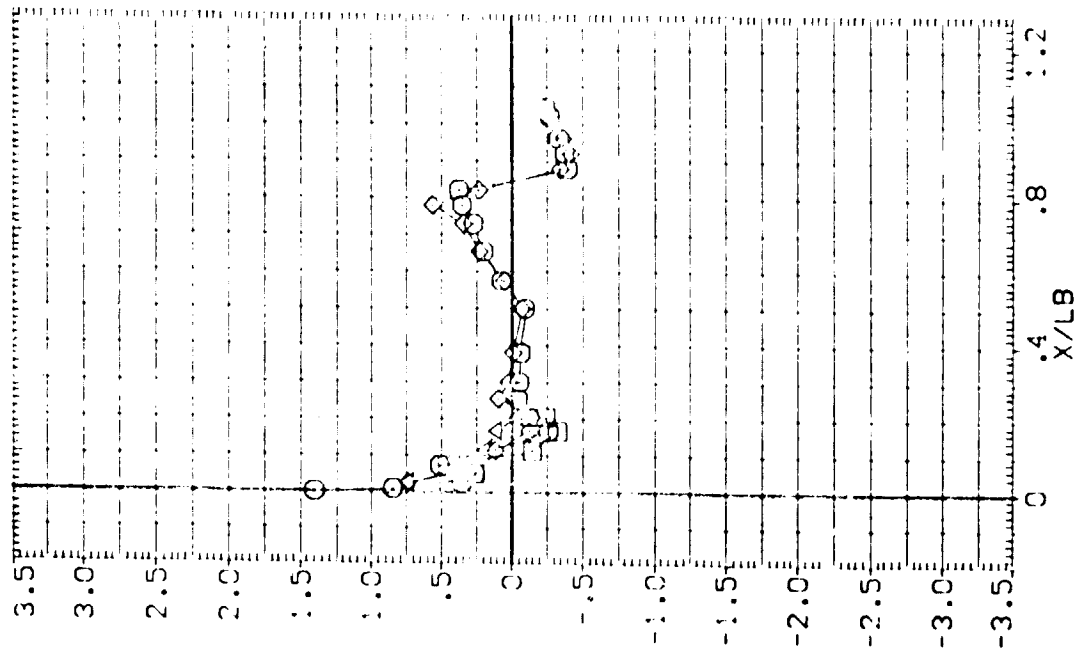
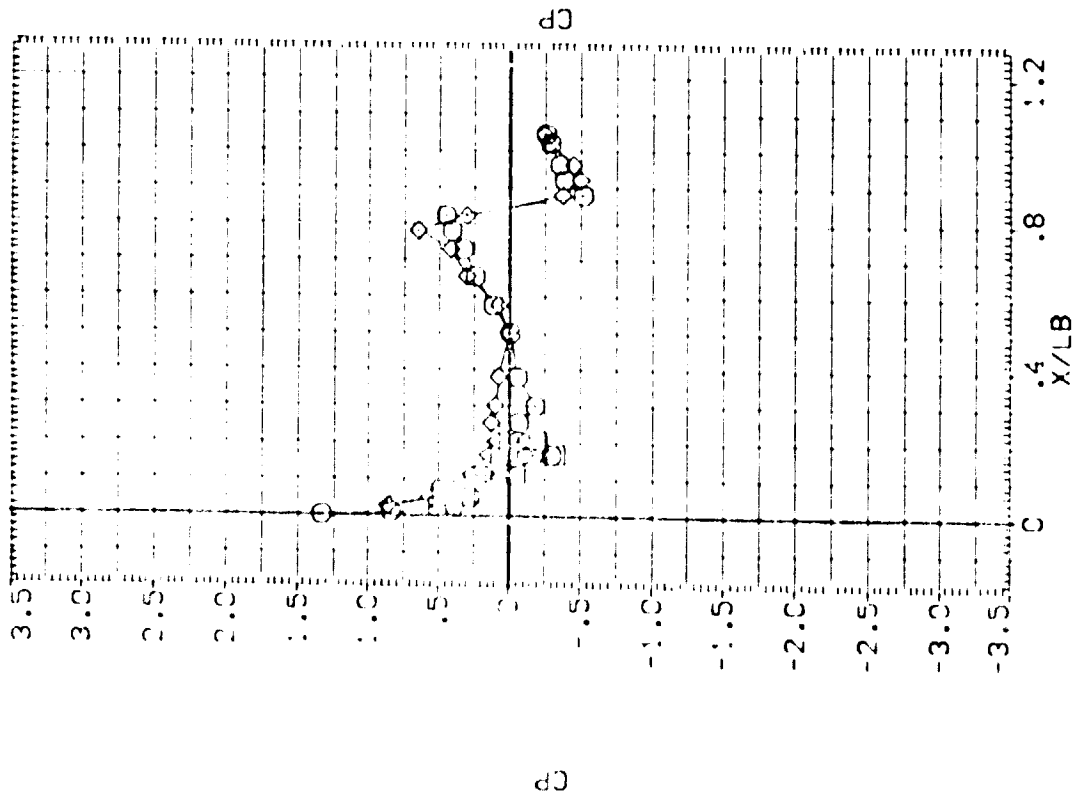
40.000

55.000

PARAMETRIC VALUES

MACH 1.250 ELEVON .000

RUDDER .000 SPOON .000



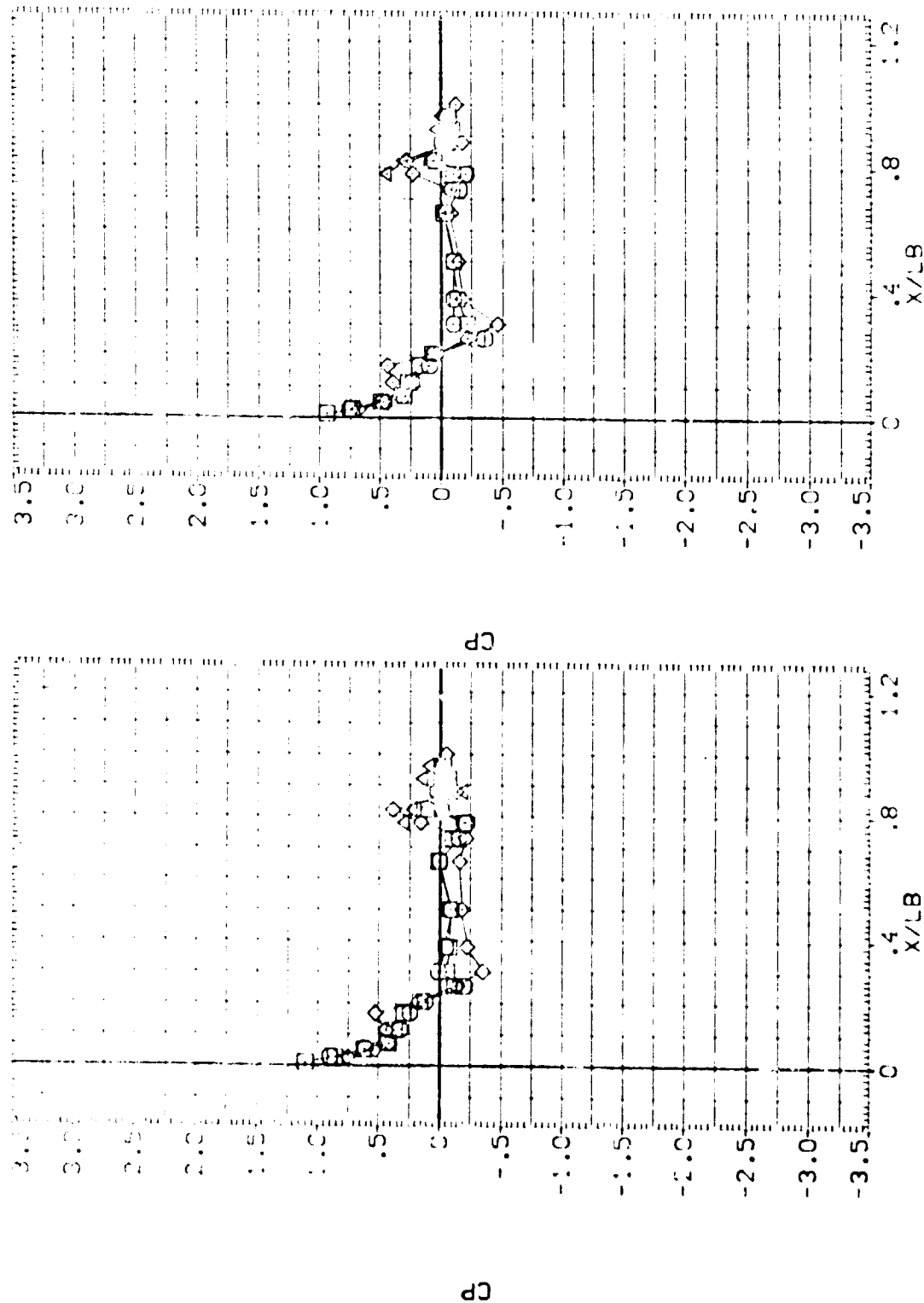
LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC: 1:16 0:1:1:2+S:2N25+ATC CRB, FUSELAGE (RB:B33)

PARAMETRIC VALUES  
MACH 1.2 ELEVON .000  
RUDDER .000

BETA: ALPHA:  
-8.420 -7.730  
-4.140

5+80.  
0 100.000  
1 80.000  
2 100.000  
3 100.000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

6-2

ARC11-716 IA14 01+T12+S12N25+AT10 ORB. FUSELAGE (RB1B33)

SYMBOL  
 ○  
 □  
 ◇

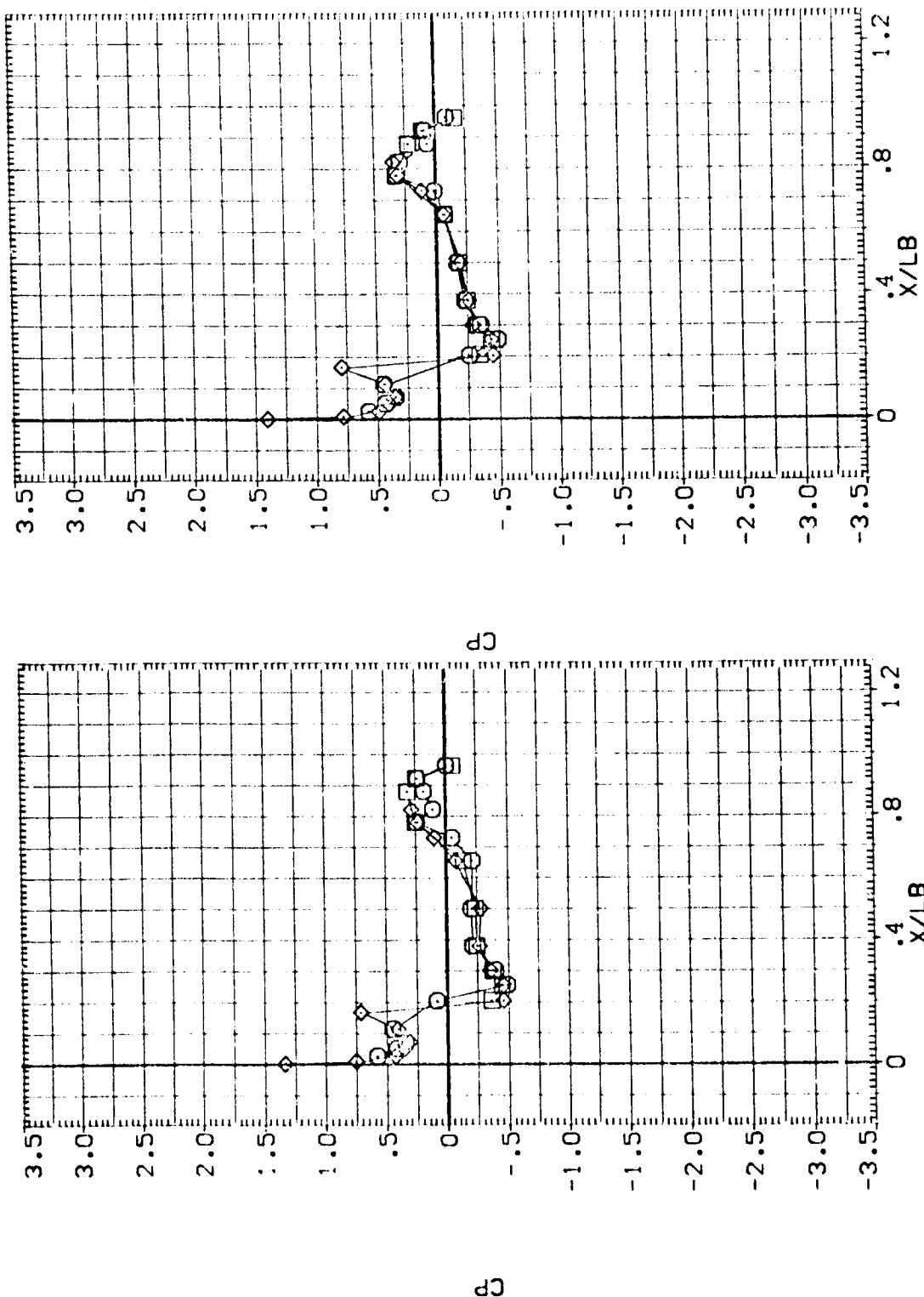
PHI  
 150.000  
 165.000  
 180.000

BETA  
 -8.420  
 -4.140

ALPHA  
 -7.30

MACH  
 RUDDER

PARAMETRIC VALUES  
 1.250  
 .000  
 ELEVON  
 SPOBRK  
 .000  
 .000

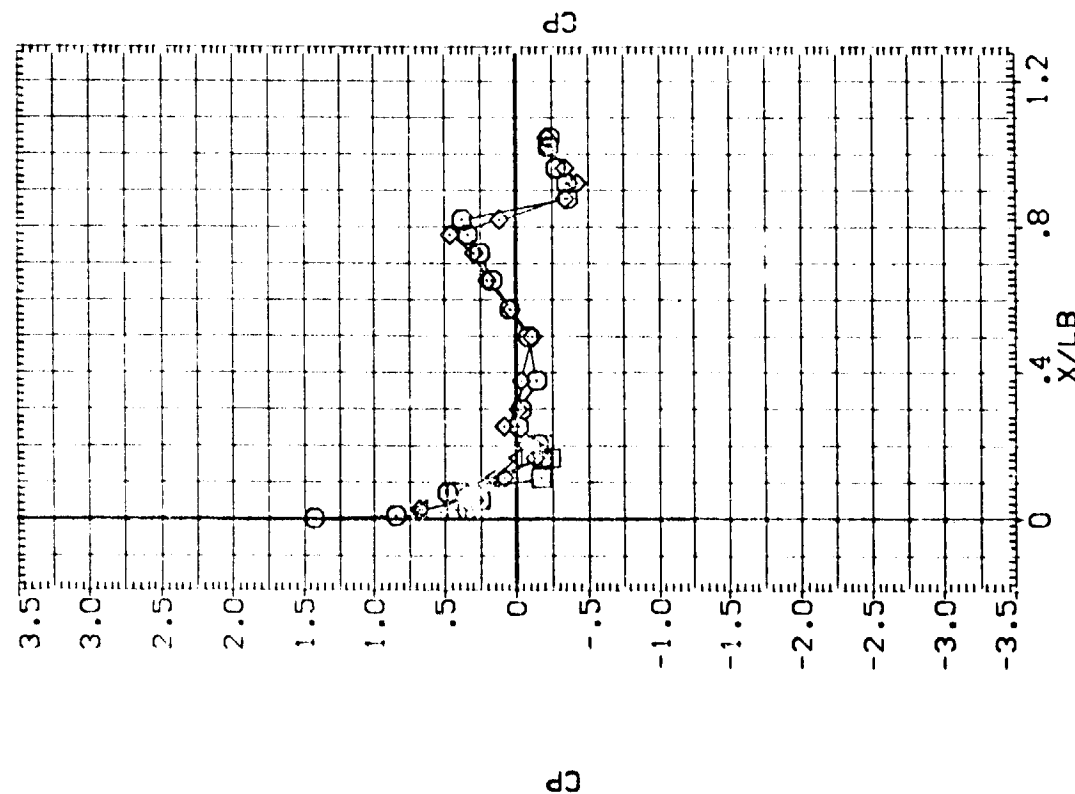
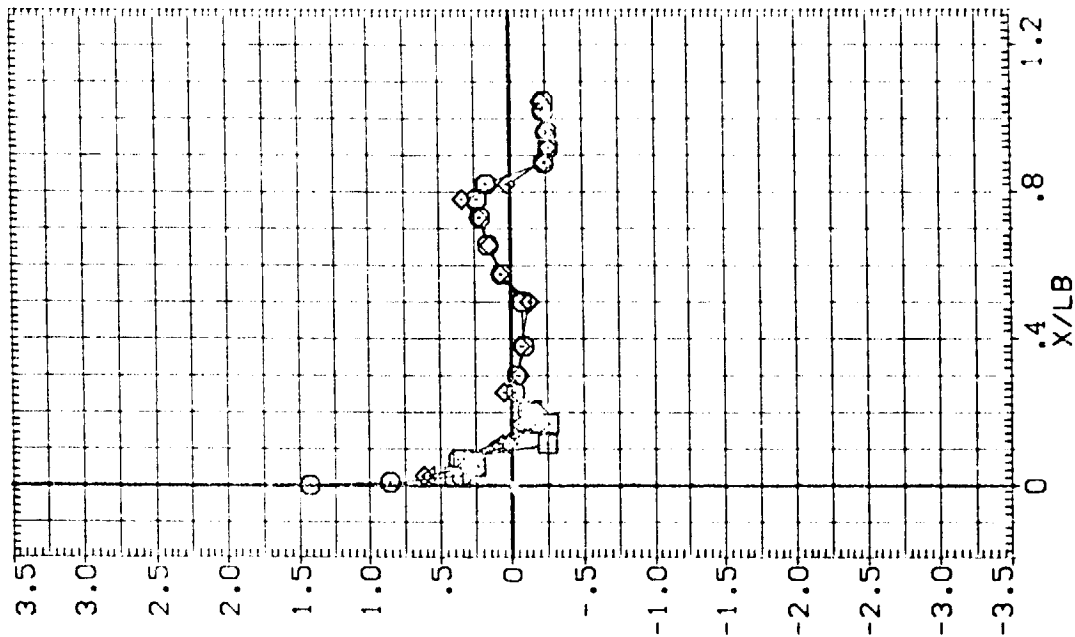


LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+112+S12N25+A110 ORB. FUSELAGE (RB1B33)

PARAMETRIC VALUES  
MACH 1.250  
ELEVON .000  
RUDDER .000

SYMBOL PHI BETAD ALPHAD  
O .000 -2.080 -.700  
◇ 20.000 .030  
△ 40.000  
55.000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 IA14 01+T12+S12N25+AT10 ORB. FUSELAGE (RB1B33)

SYMBOL

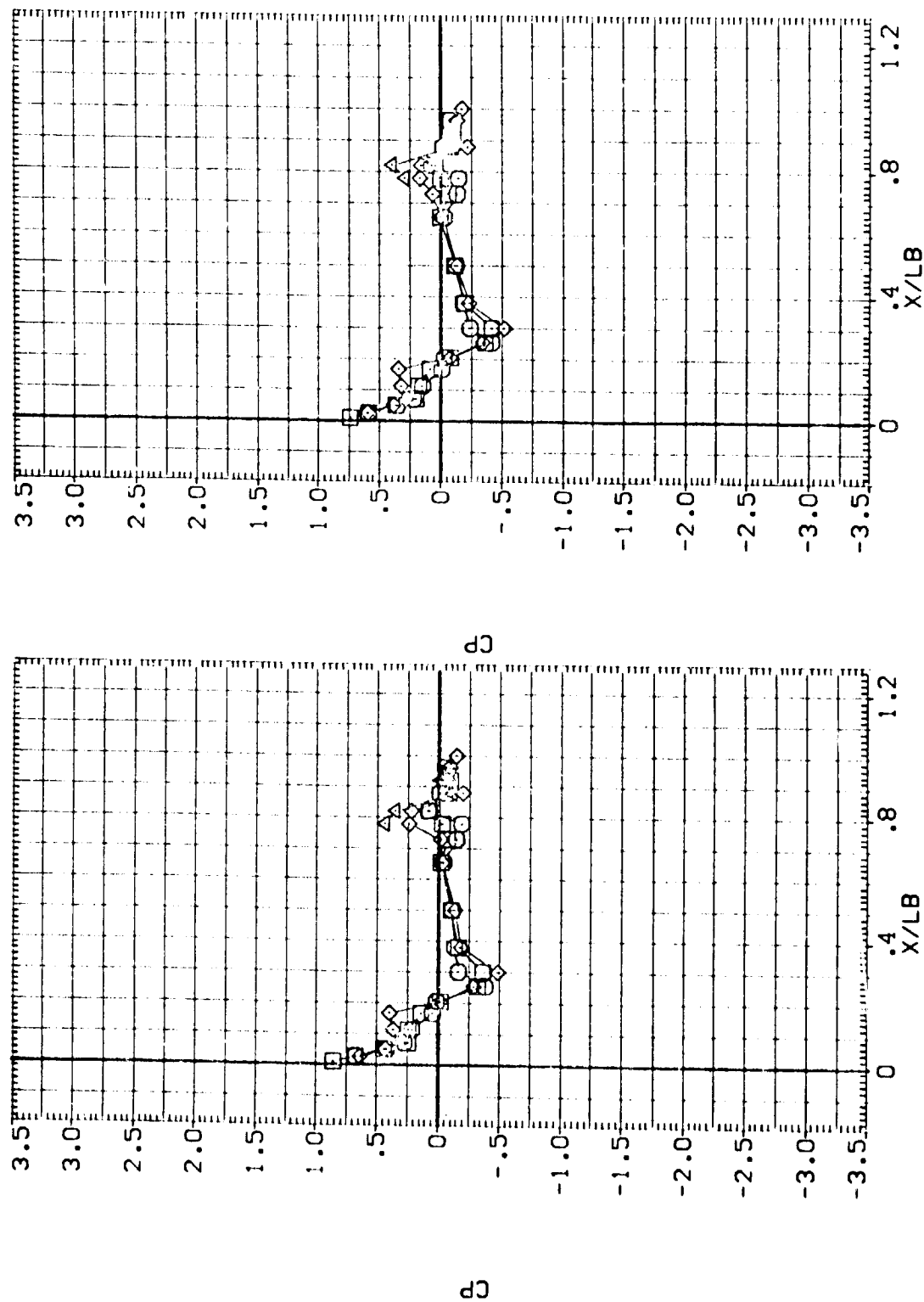
○ □ ◇ △

PHI 70.000  
90.000  
120.000  
135.000

BETA0 -2.080  
.030

ALPHA0 -7.00

PARAMETRIC VALUES  
MACH 1.250  
RUDDER .000  
ELEVON .000  
SPOBRK .000

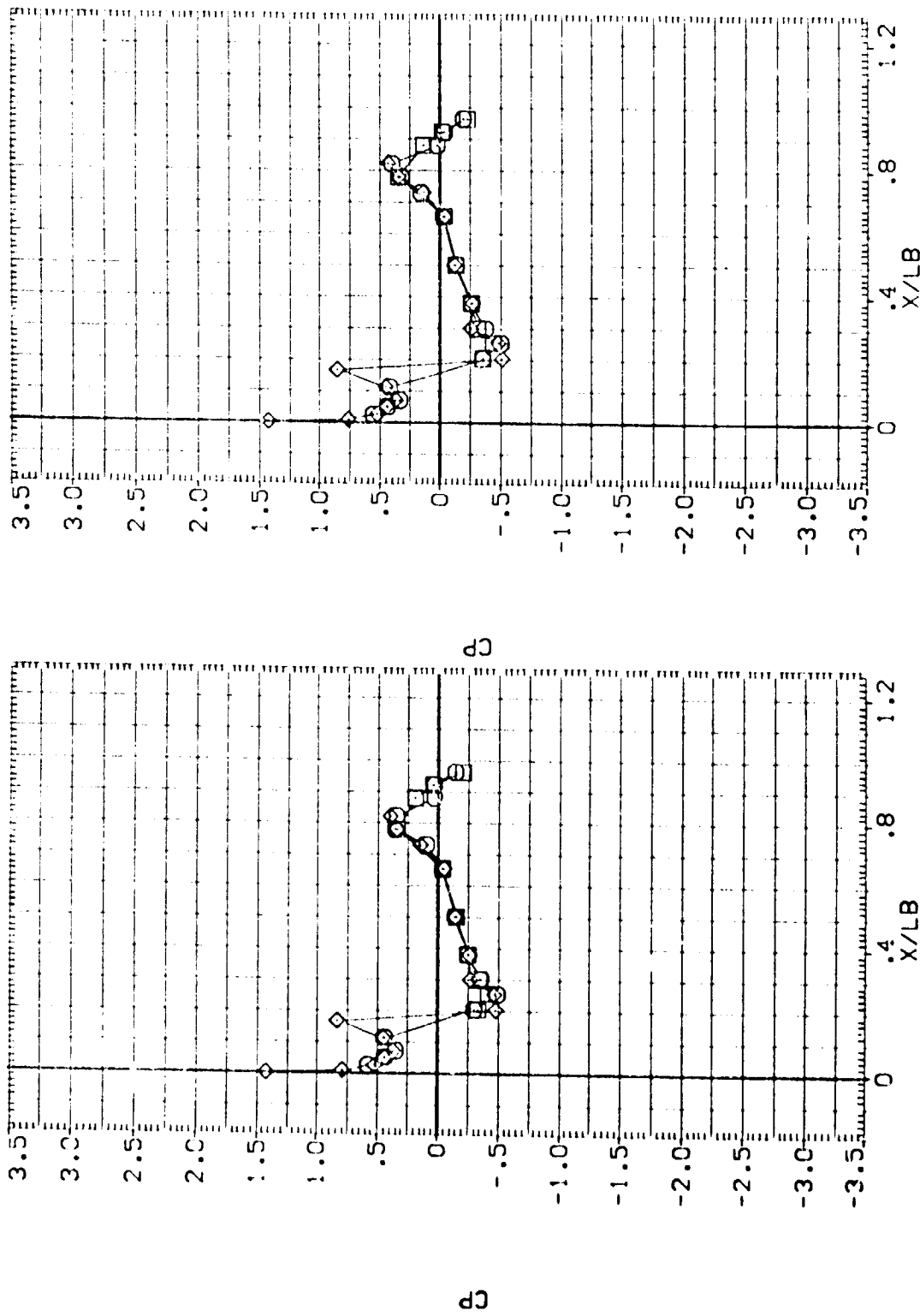


LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES



ARC11-716 1A14 01+T12-S12N25+AT10 ORB. FUSELAGE (RB1933)

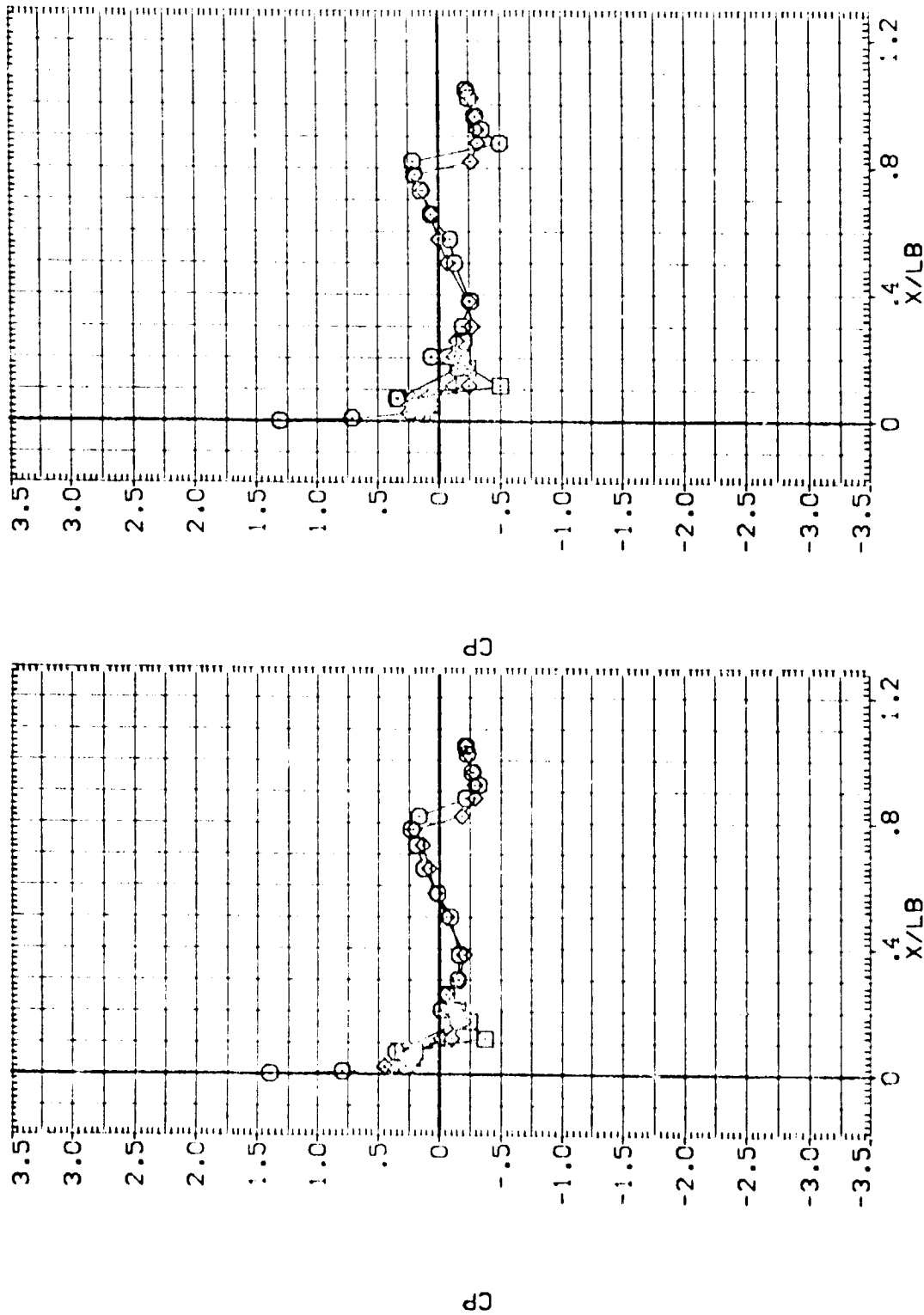
SYMBOL	PHI	BETA	ALPHA	PARAMETRIC VALUES		
○	150.000	-2.080	-0.700	MACH	1.250	ELEVON
□	165.000	.030		RUDDER	.000	SPDBRK
◇	180.000					.000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-7:6 1A14 01+T12+S12N25+AT10 ORB. FUSELAGE (R81B33)

SYMBOL	PHI	BETA	ALPHA	PARAMETRIC VALUES	
	.000	4.270	-7.10	MACH	ELEVON
	20.000	8.130		.000	SPOBR
	40.000				.000
	55.000				



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 IA14 01+I12+S12N25+AT10 ORB. FUSELAGE (RB1B33)

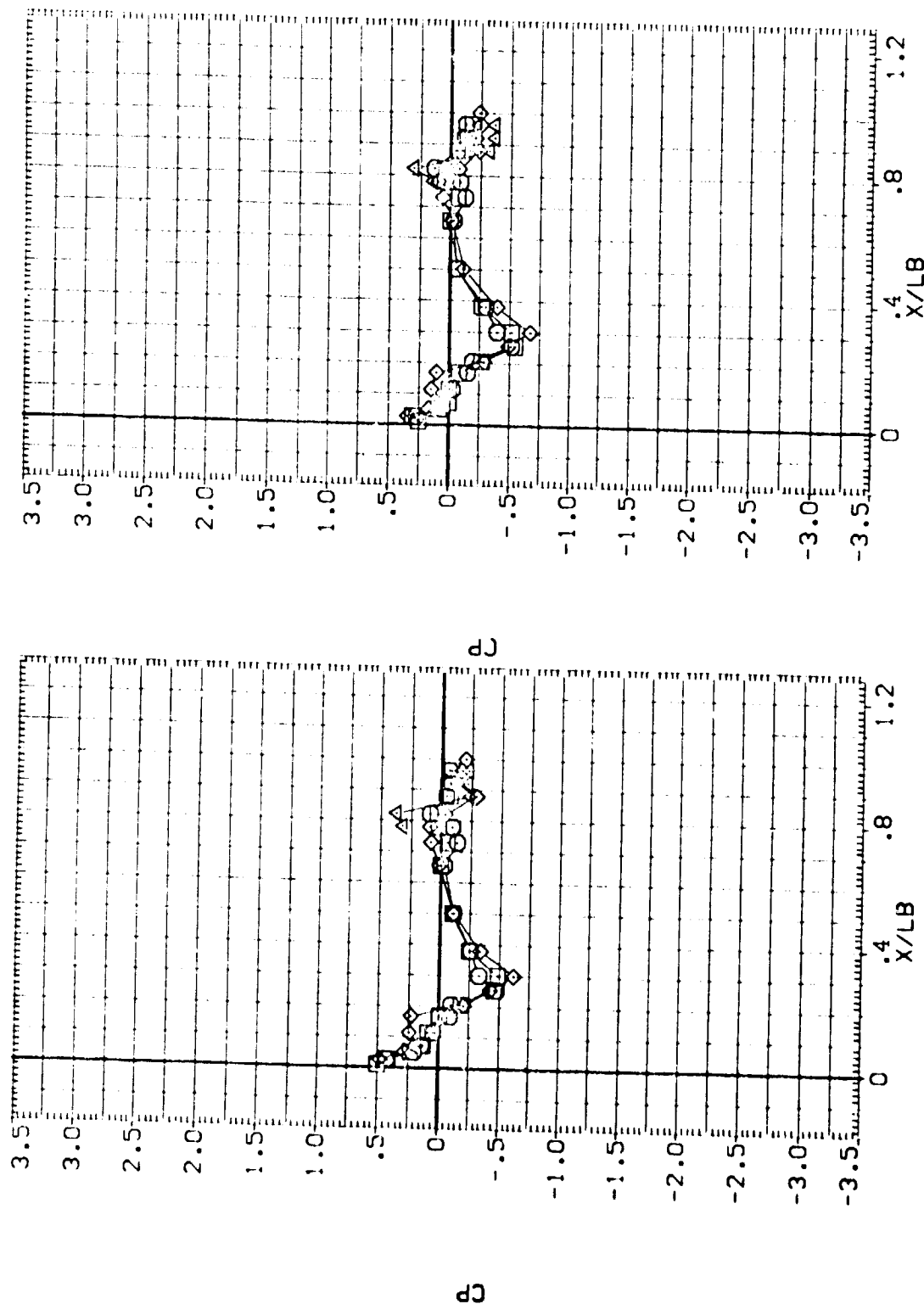
SYMBOL  
 O  
 ◇  
 △

PHI  
 70.000  
 90.000  
 120.000  
 135.000

BETAS  
 4.270  
 8.130

ALPHAS  
 -7.10

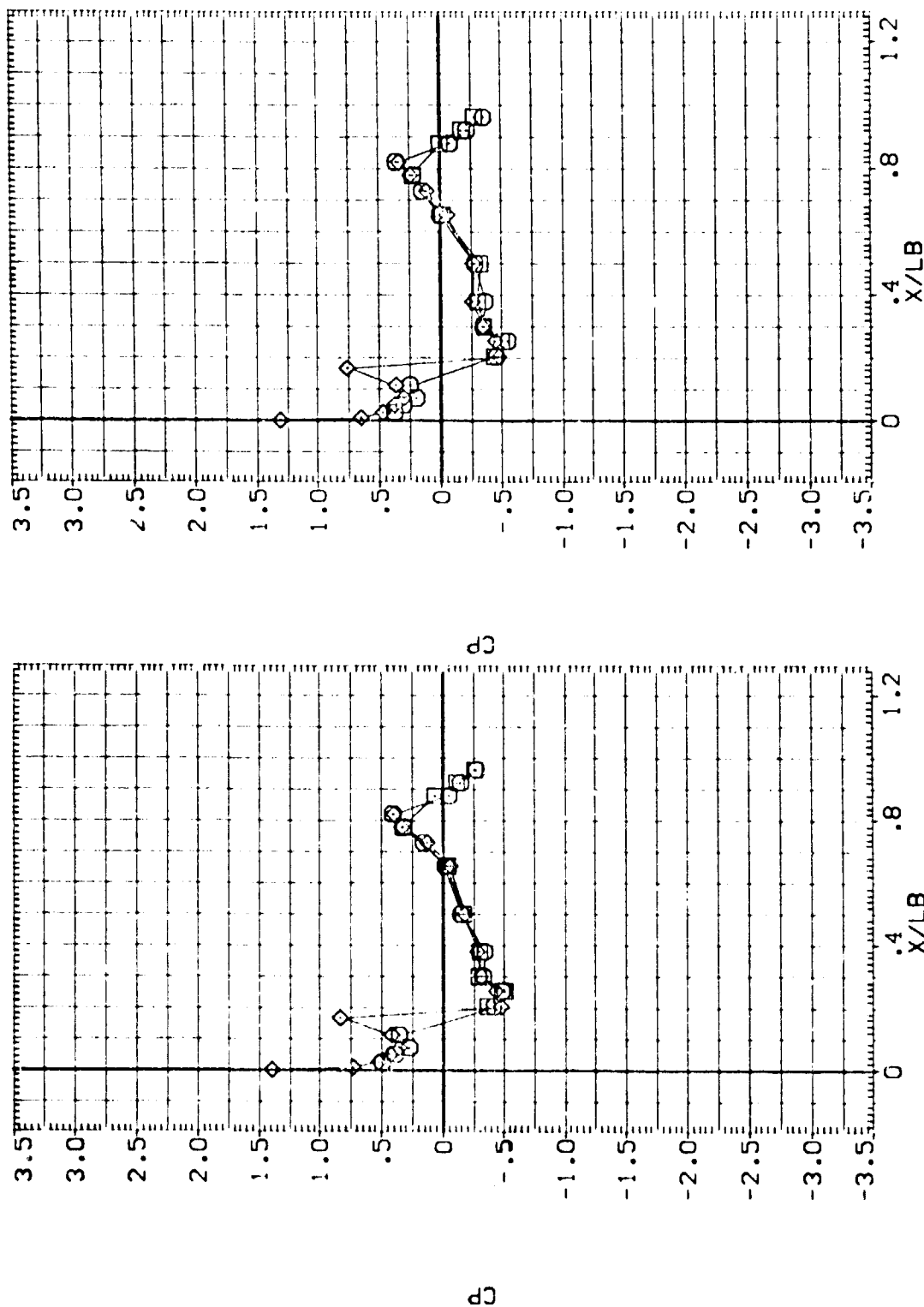
PARAMETRIC VALUES  
 MACH 1.250 ELEVON .000  
 RUDDER .000 SPOILER .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-7:6 1A14 01+T12+S12N25+AT10 ORB. FUSELAGE (RB1B33)

SYMBOL	PHI	BETAG	ALPHAQ	PARAMETRIC VALUES		
				MACH	ELEVON	
○	150.000	4.270	-7.10	1.250	.000	.000
◇	165.000	8.130		.000	SPORRK	.000
◇	180.000					



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC:-716 1A14 01+T12+S12N25+AT10 ORB. FUSELAGE (RB1B33)

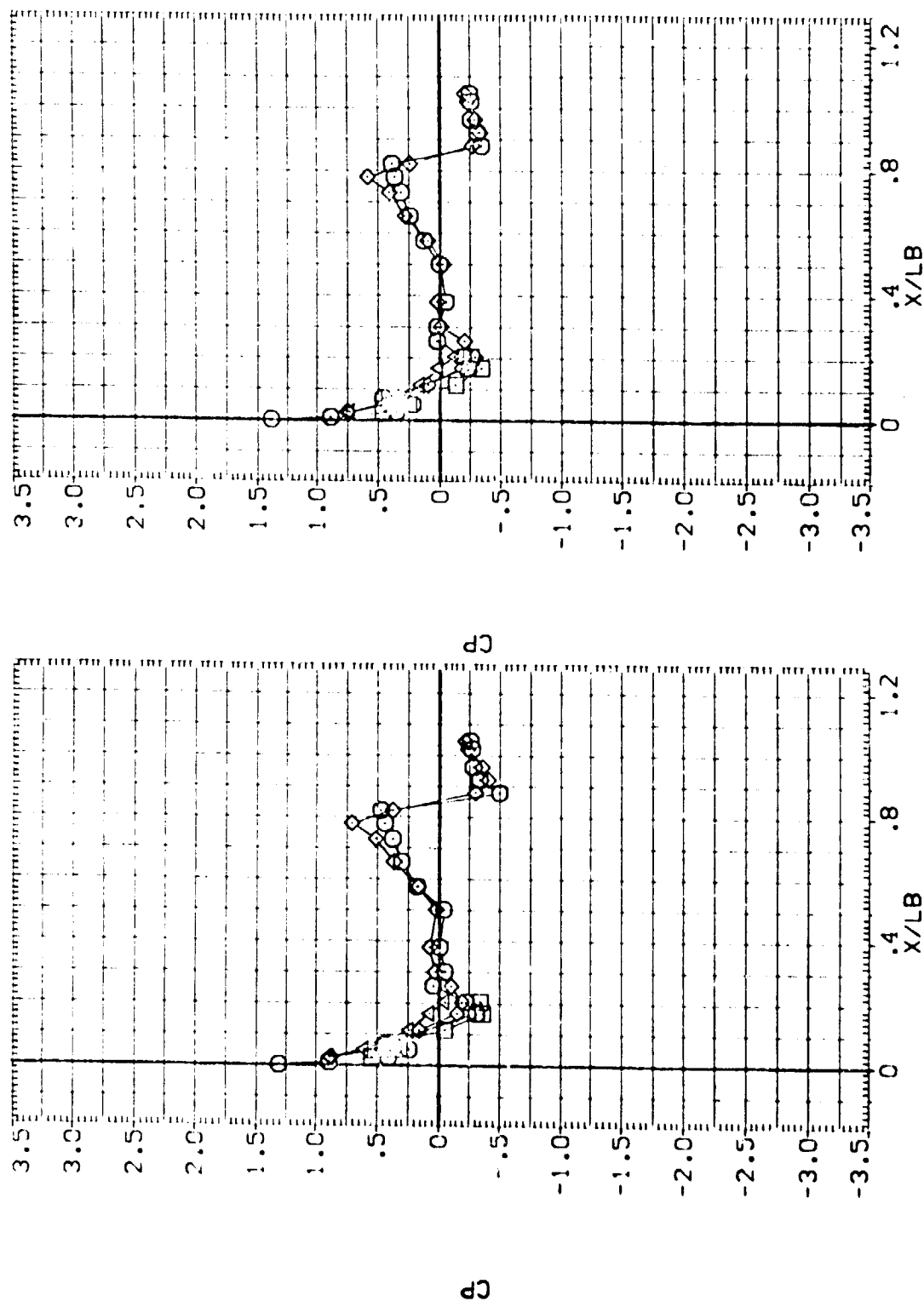
SYMBOL  
○ ◇ △

PHI .000  
20.000  
40.000  
55.000

BETA0  
-8.090  
-3.970

ALPHA0  
4.200

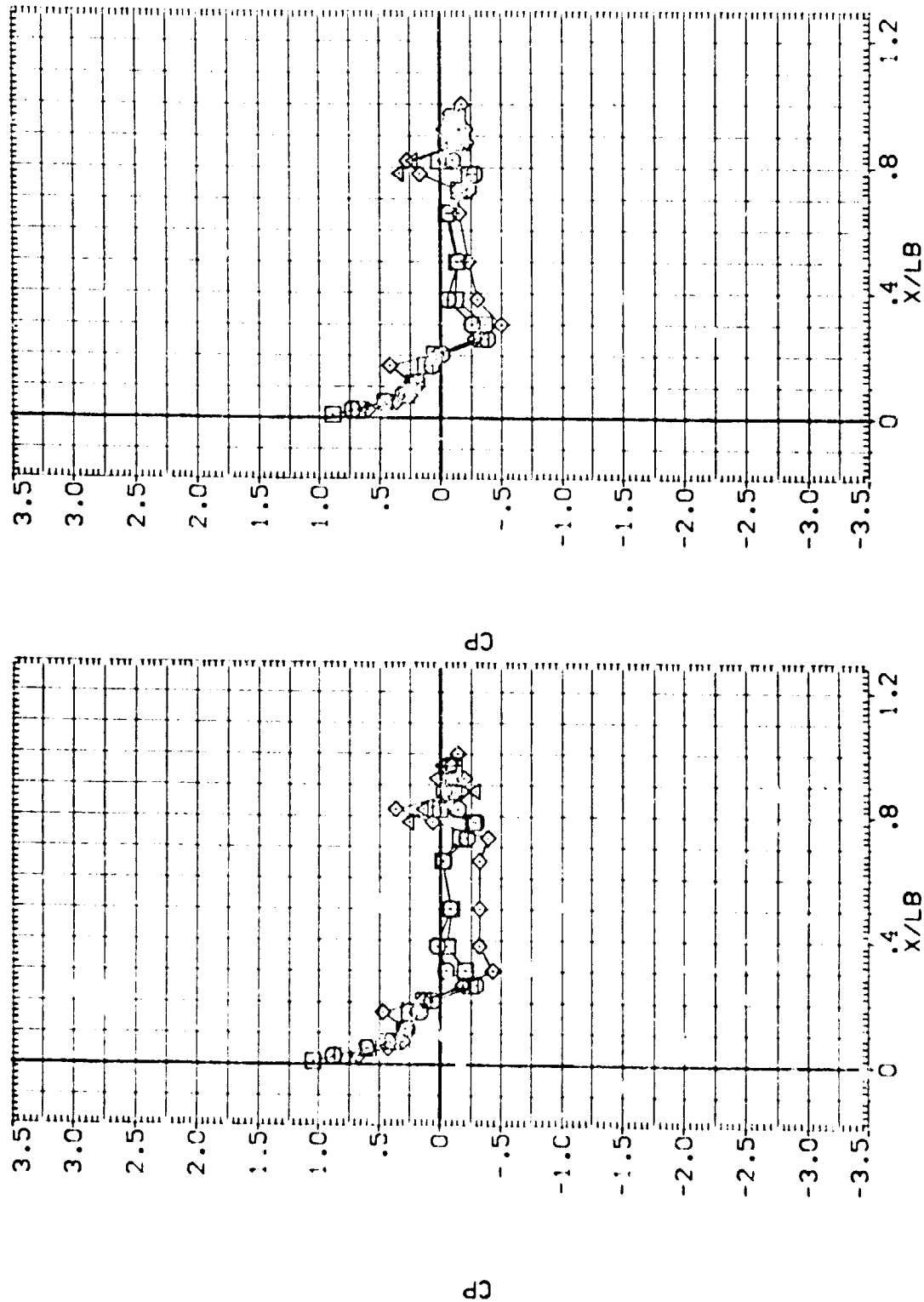
PARAMETRIC VALUES  
MACH 1.250  
ELEVON .000  
RUDDER .000  
SPOILER .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC:11-716 1A14 01+T12+S12N25+AT10 ORB. FUSELAGE (RB1B33)

SYMBOL	PHI	BETA	ALPHA	PARAMETRIC VALUES		
				MACH	ELEVON	
○	70.000	-8.090	4.200	1.250	.000	.000
□	90.000	-3.970		.000	SPOBRK	.000
◇	120.000					
△	135.000					



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+112+S12N25+AT10 ORB. FUSELAGE (R81B33)

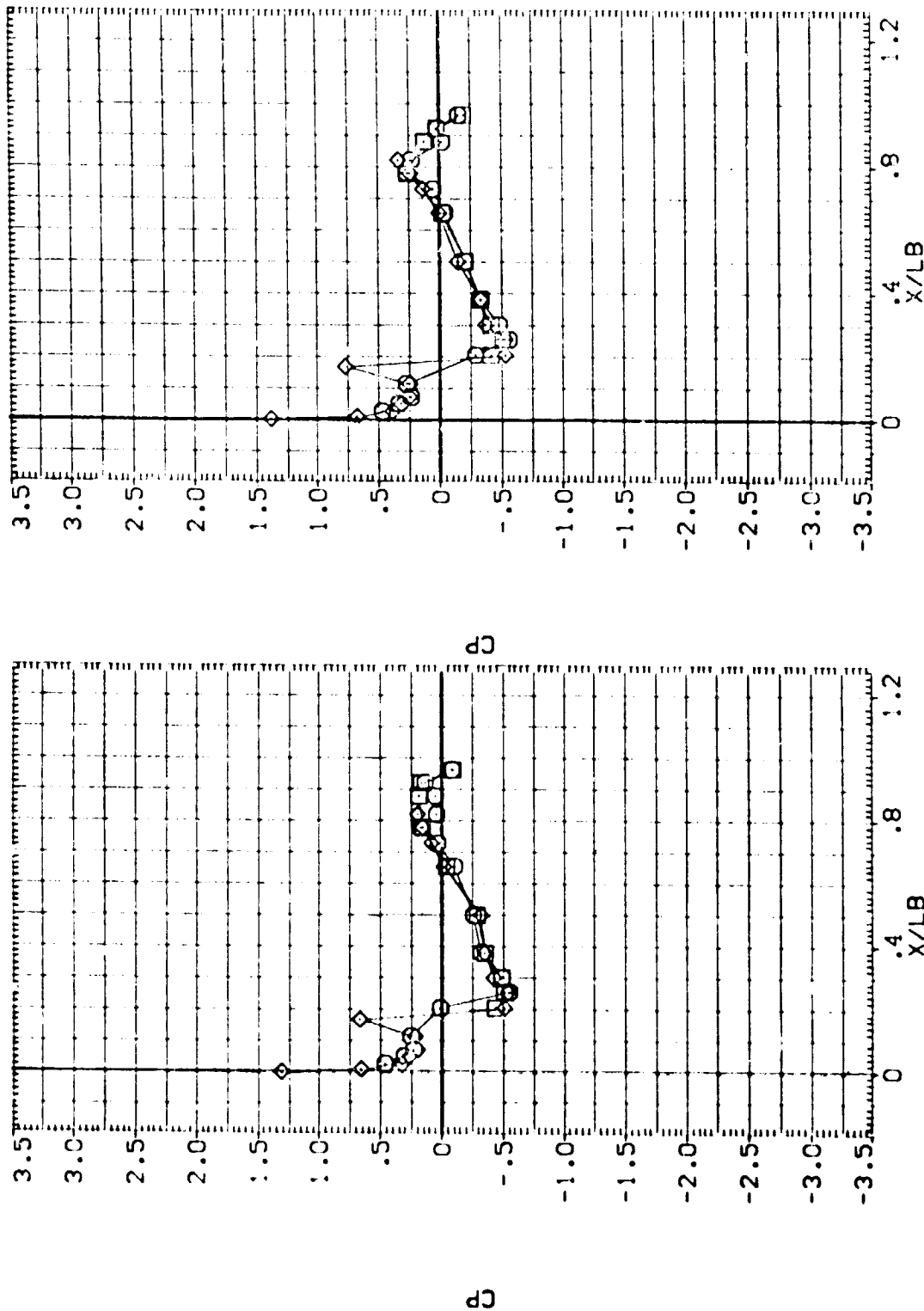
SYMBOL  
 ○  
 □  
 ◇

PHI  
 150.000  
 155.000  
 160.000

BETA0  
 -8.090  
 -3.970

ALPHA0  
 4.200

PARAMETRIC VALUES  
 MACH 1.250 ELEVON .000  
 RUDDER .000 SPOILER .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 ORB. FUSELAGE (R81B33)

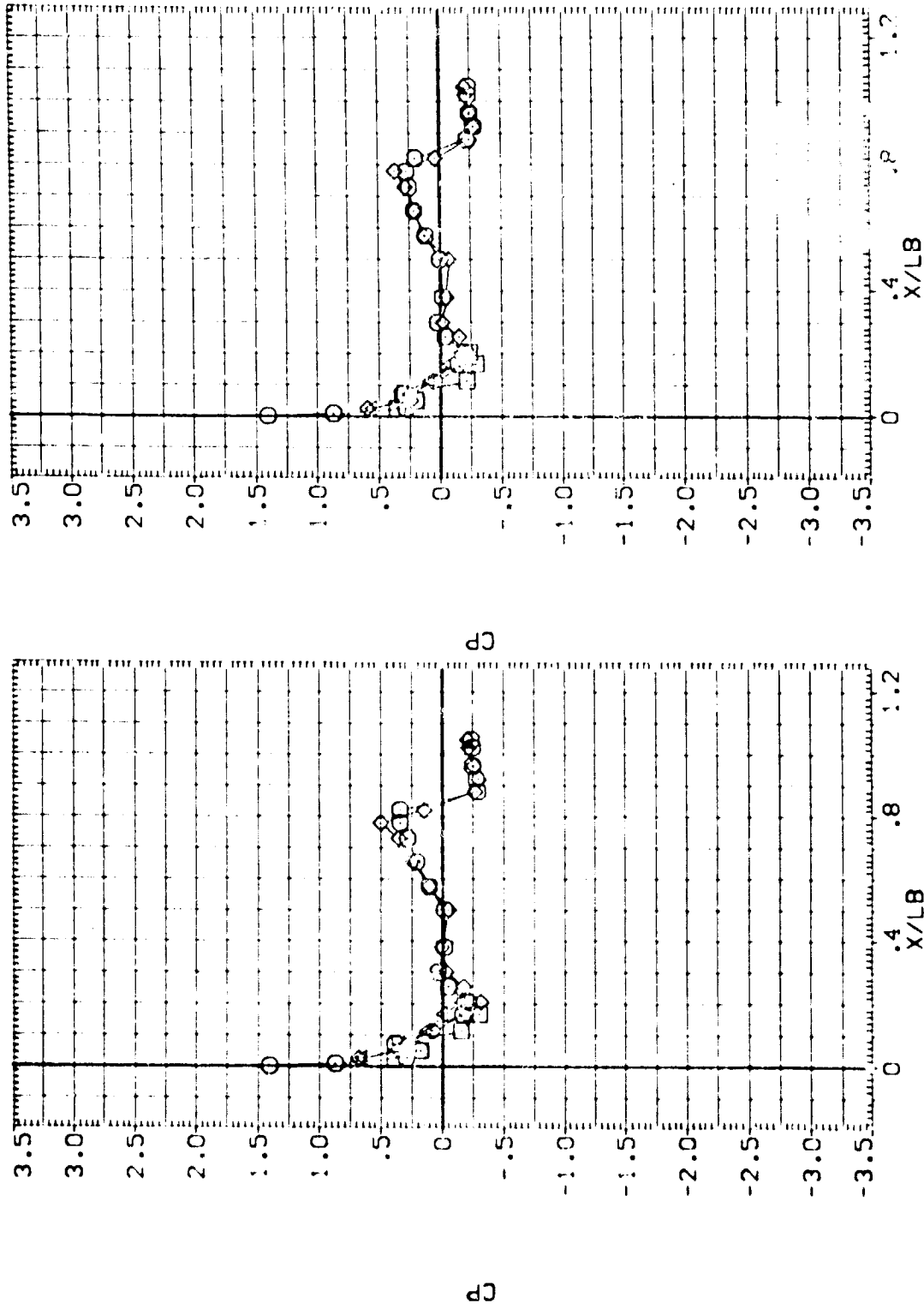
SYMBOL  
○  
◇  
△

PHI .000  
20.000  
40.000  
55.000

BETA0 -2.000  
-.070

ALPHA0 4.220

PARAMETRIC VALUES  
MACH 1.250  
RUDDER .000  
ELEVON .000  
SPOBRK .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES



ARC11-716 1A14 01+T12+S12N25+AT10 ORB. FUSELAGE (RB1833)

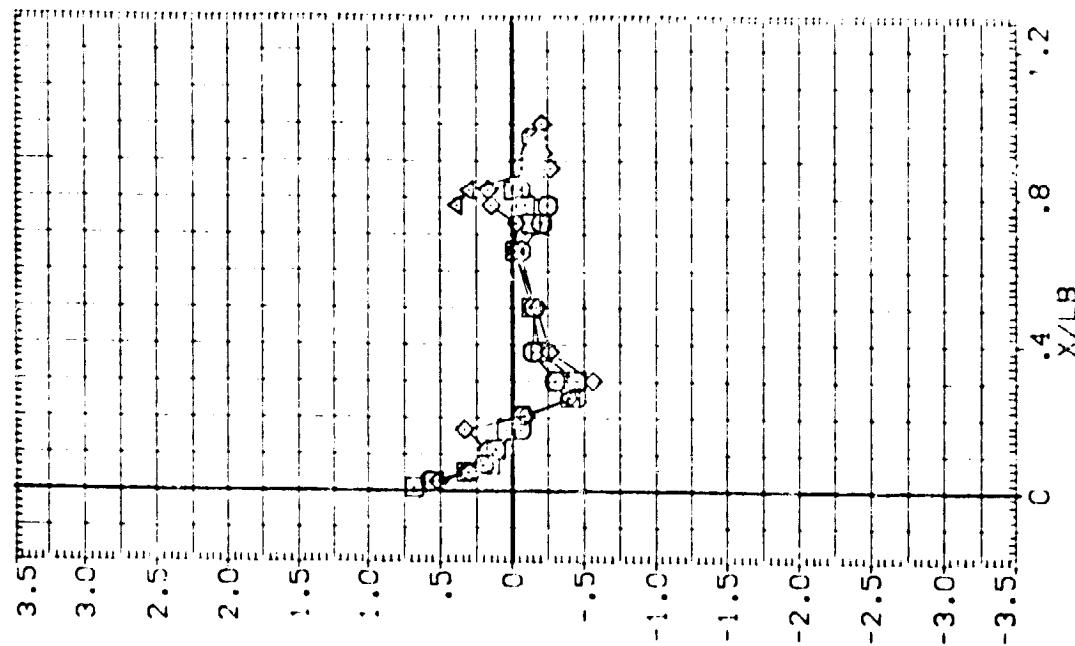
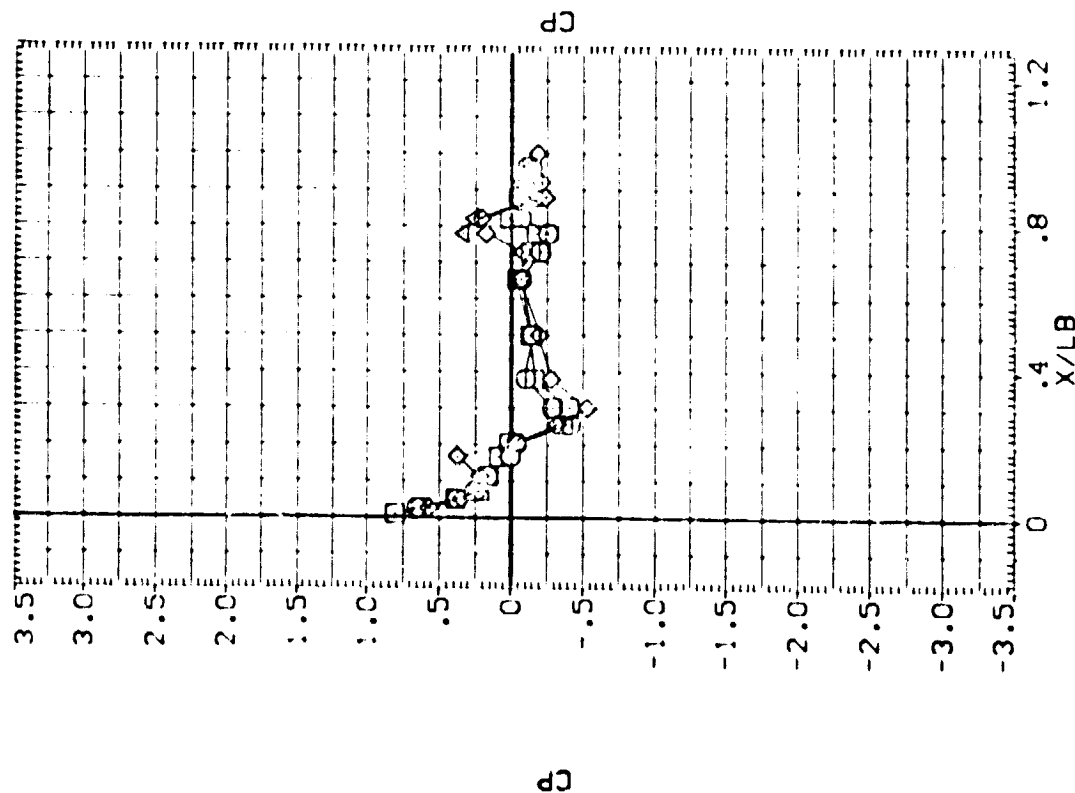
SYMBOL  
 O 1  
 1 2  
 4

PHI 70.000  
 90.000  
 120.000  
 135.000

BETA0 -2.000  
 -1.070

ALPHA0 4.220

PARAMETRIC VALUES  
 MACH 1.250  
 ELEVON .000  
 RUDDER .000  
 SPOILER .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-71E 1A14 01+T12+S12+25+AT10 ORB. FUSELAGE (RB1B33)

SYMBOL

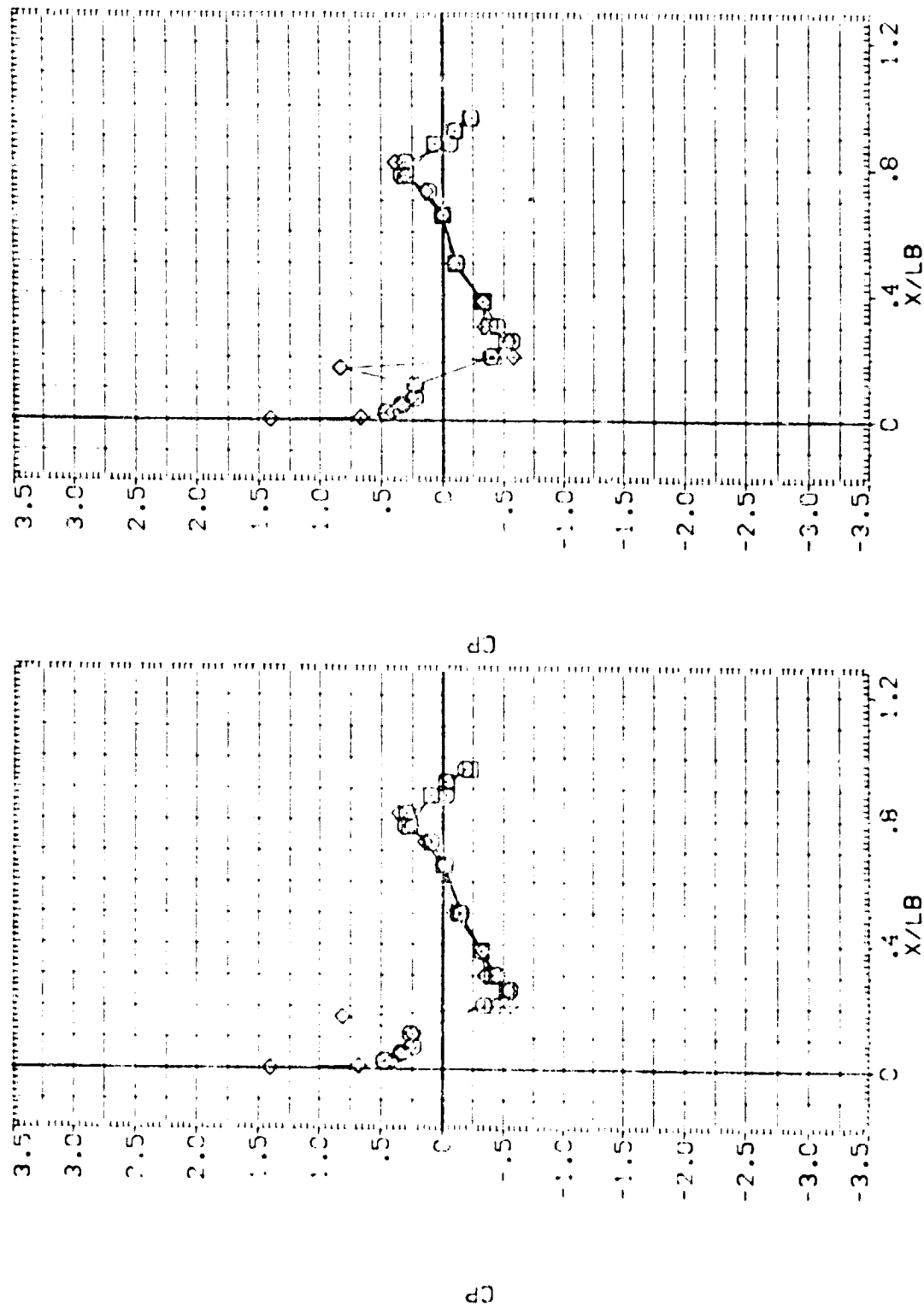
PHI 150.000  
165.000  
180.000

BETA 0  
-2.000  
-4.000

ALPHA 0  
4.220

MACH  
RUDDER

PARAMETRIC VALUES  
1.750 1.000  
ELEVON 1.000  
SPORAK 1.000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 ORB. FUSELAGE (RB1B33)

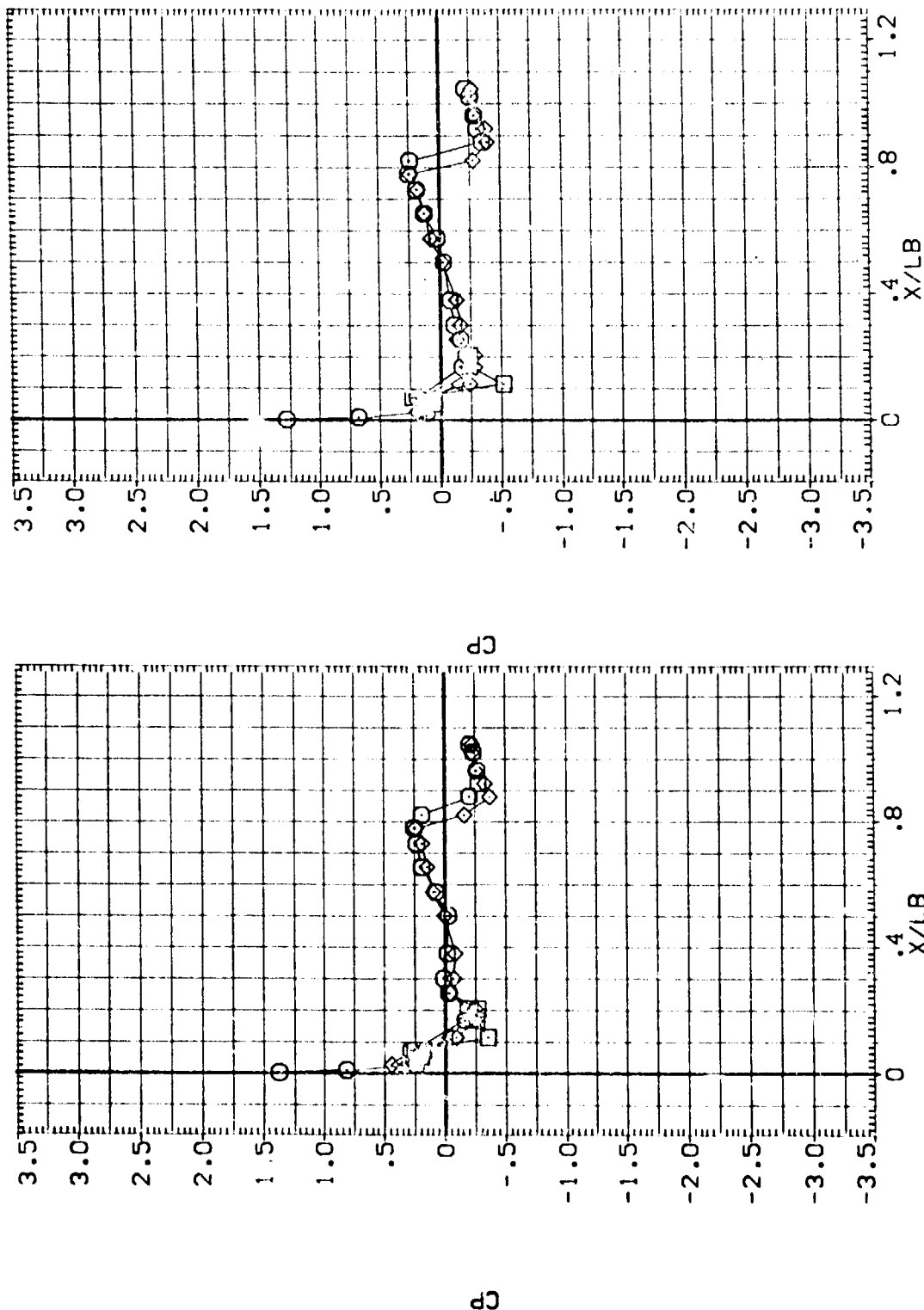
SYMBOL  
 ○  
 □  
 ◇  
 △

PHI .000  
 20.000  
 40.000  
 55.000

BETA0 4.100  
 8.150

ALPHA0 4.430

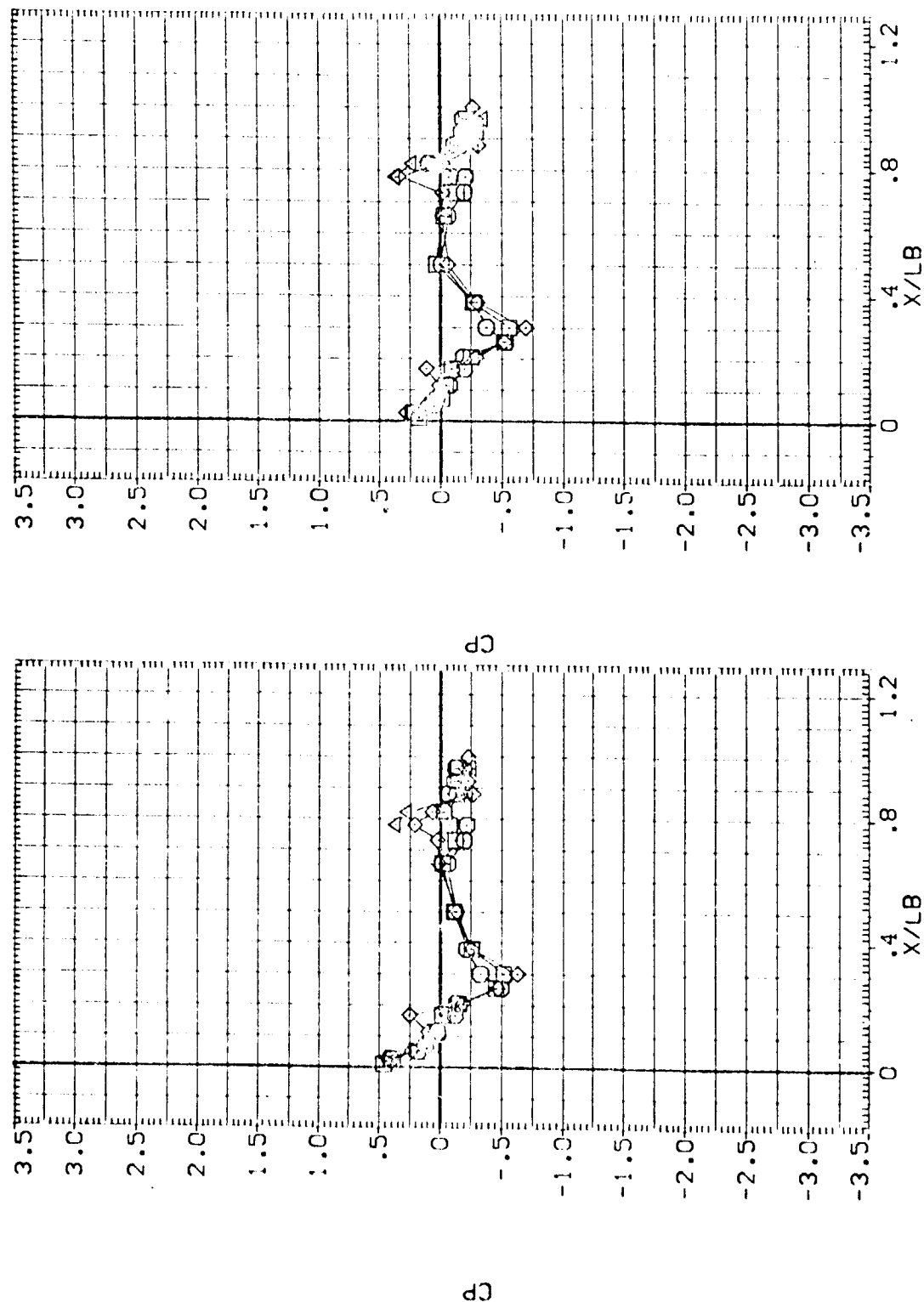
PARAMETRIC VALUES  
 MACH 1.250  
 RUDDER .000  
 ELEVON .000  
 SPOBRK .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 IA14 01+T12+S12N25+AT10 ORB. FUSELAGE (RB1B33)

SYMBOL	PHI	BETAB	ALPHAG	PARAMETRIC VALUES		
				MACH	ELEVON	SPOBRK
□	70.000	4.100	4.430	1.250	.000	.000
◇	90.000	8.150		.000	.000	.000
△	120.000					
▽	135.000					



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 ORB. FUSELAGE (RB1B33)

SYMBOL

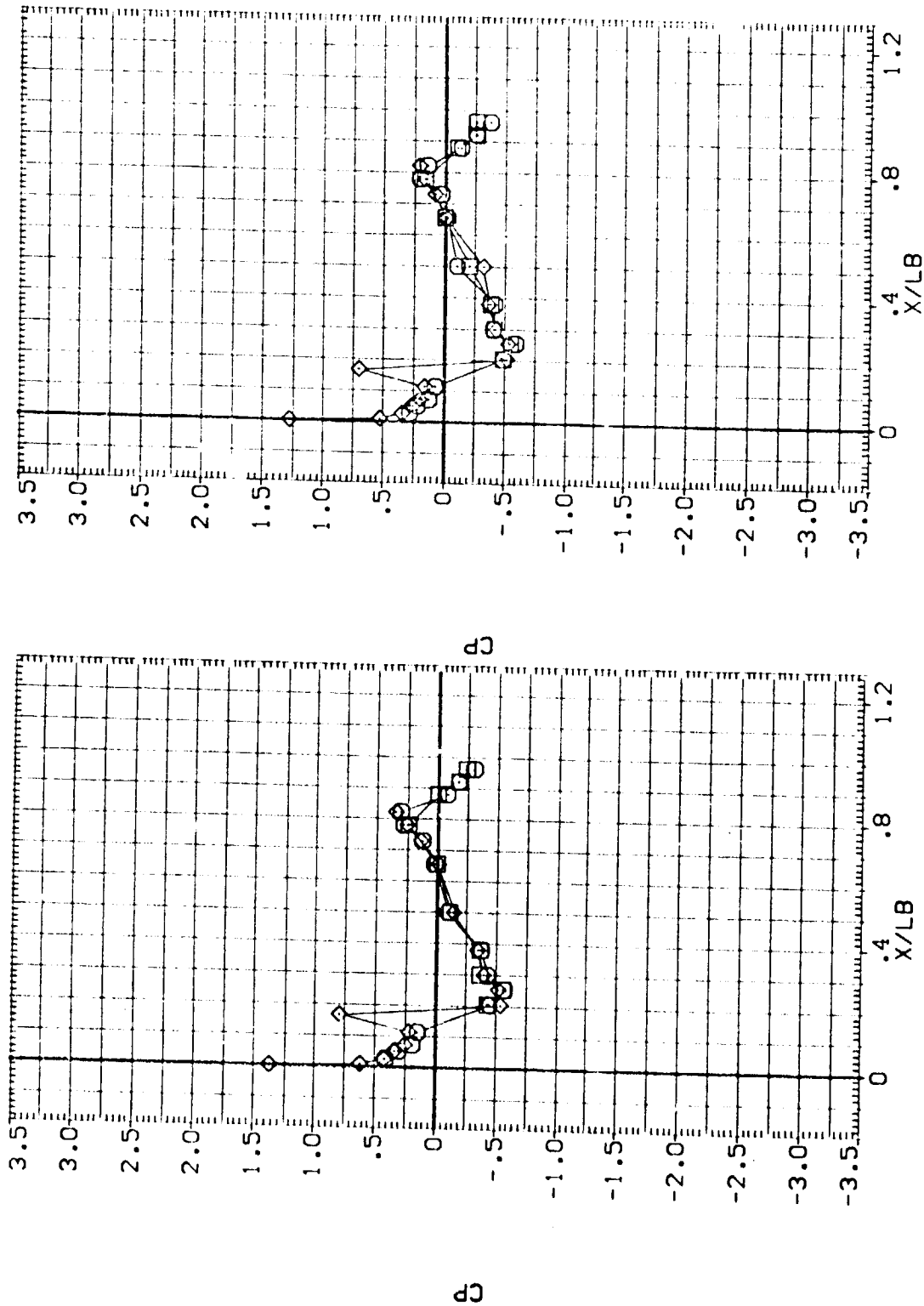
150.000  
165.000  
180.000

BETAO 4.100  
ALPHA0 4.430  
9.150

PARAMETRIC VALUES

1.250  
ELEVON  
.000  
SPORRY

MACH  
RUDDER



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 ORB. FUSELAGE (RB1B33)

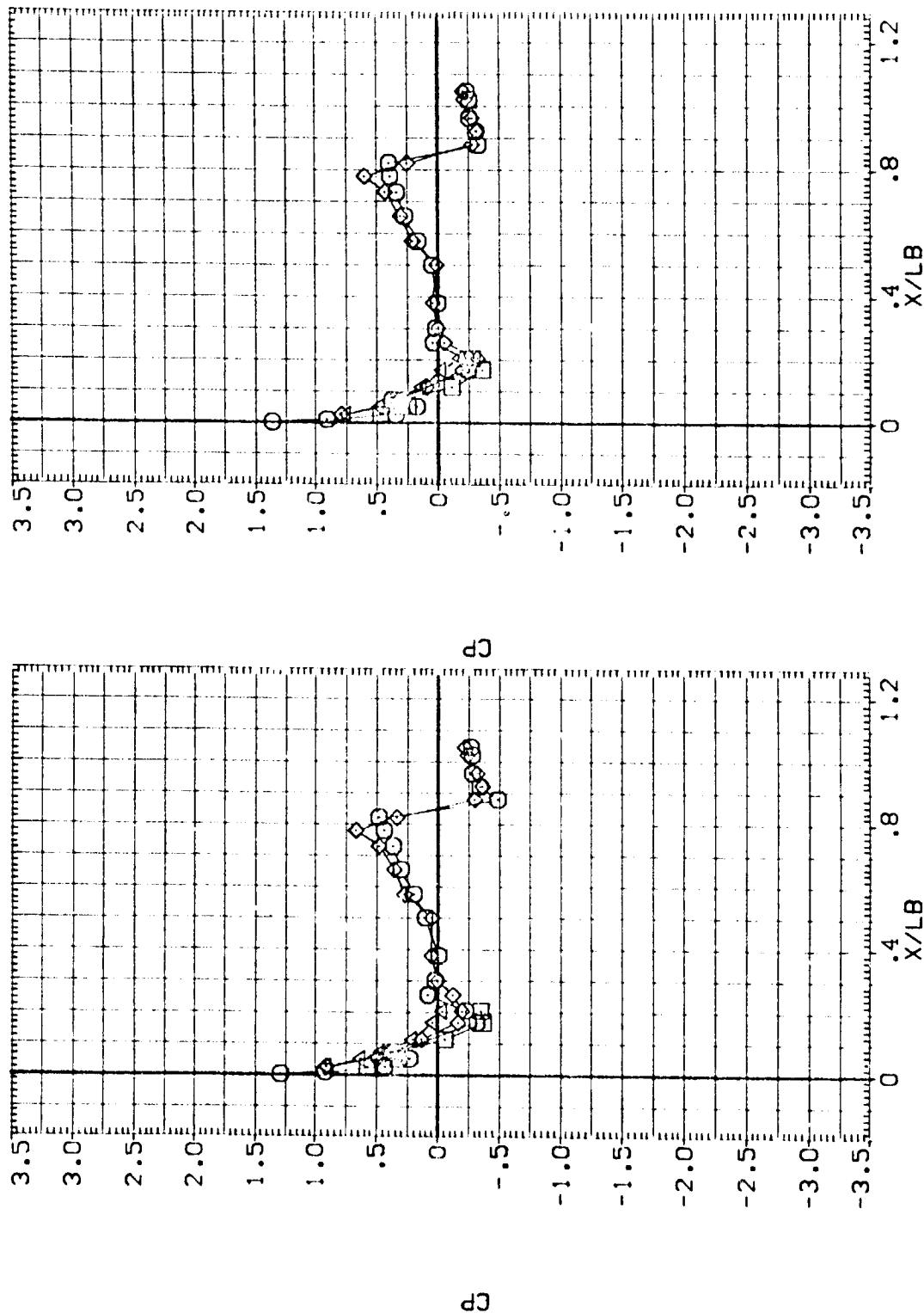
SYMBOL  
○ □ ◇ △

PHI .000  
20.000  
40.000  
55.000

BETA0 -8.030  
-4.000

ALPHA0 7.930

PARAMETRIC VALUES  
MACH 1.250  
RUDDER .000  
ELEVON .000  
SPOILER .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

# ARC11-716 IA14 01+T12+S12N25+AT10 ORB. FUSELAGE (RB1B33)

SYMBOL

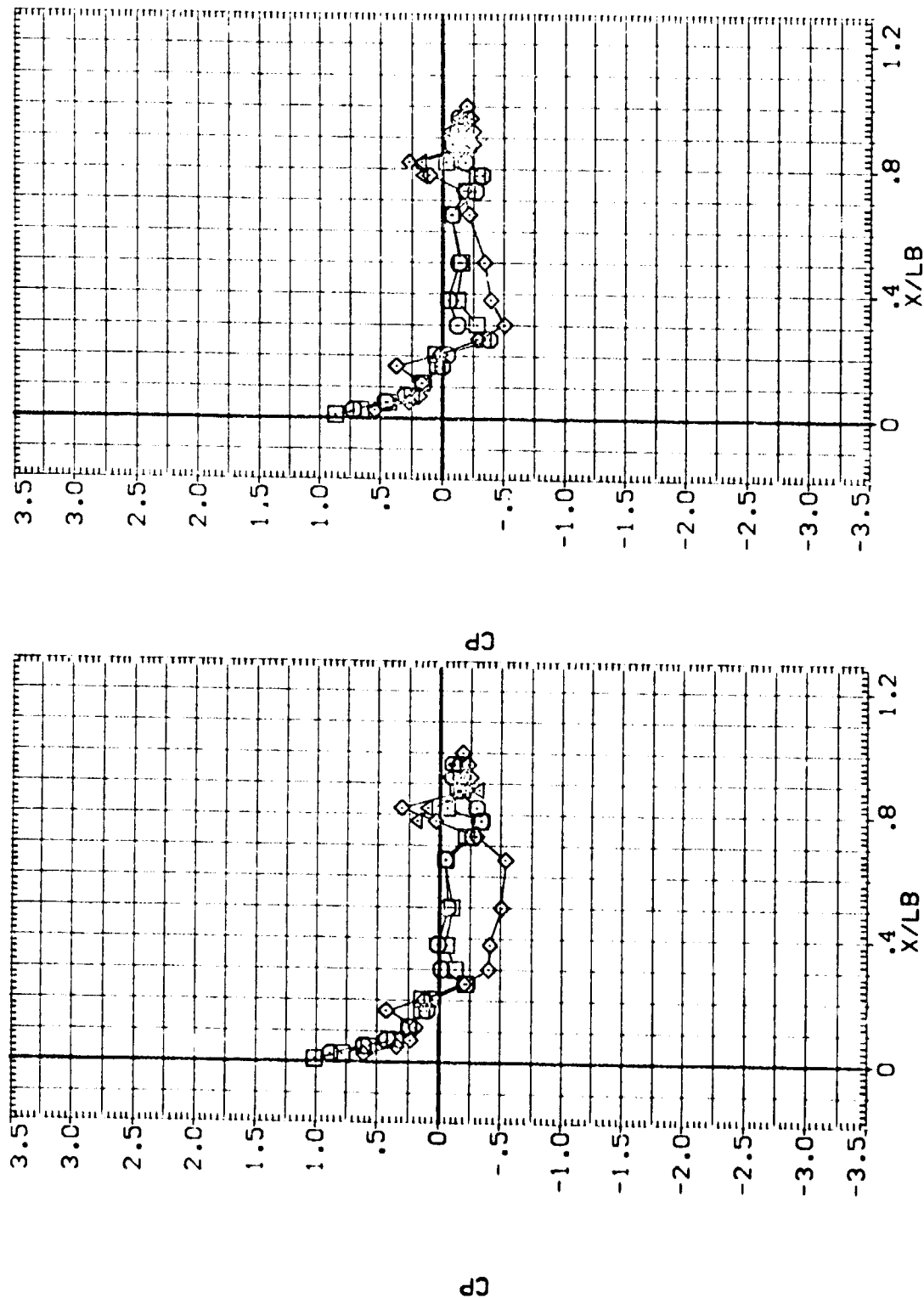
PHI 70.000  
 90.000  
 120.000  
 135.000

BETA0 -8.030  
 -4.000

ALPHA0 7.930

MACH 1.250  
 RUDDER .000

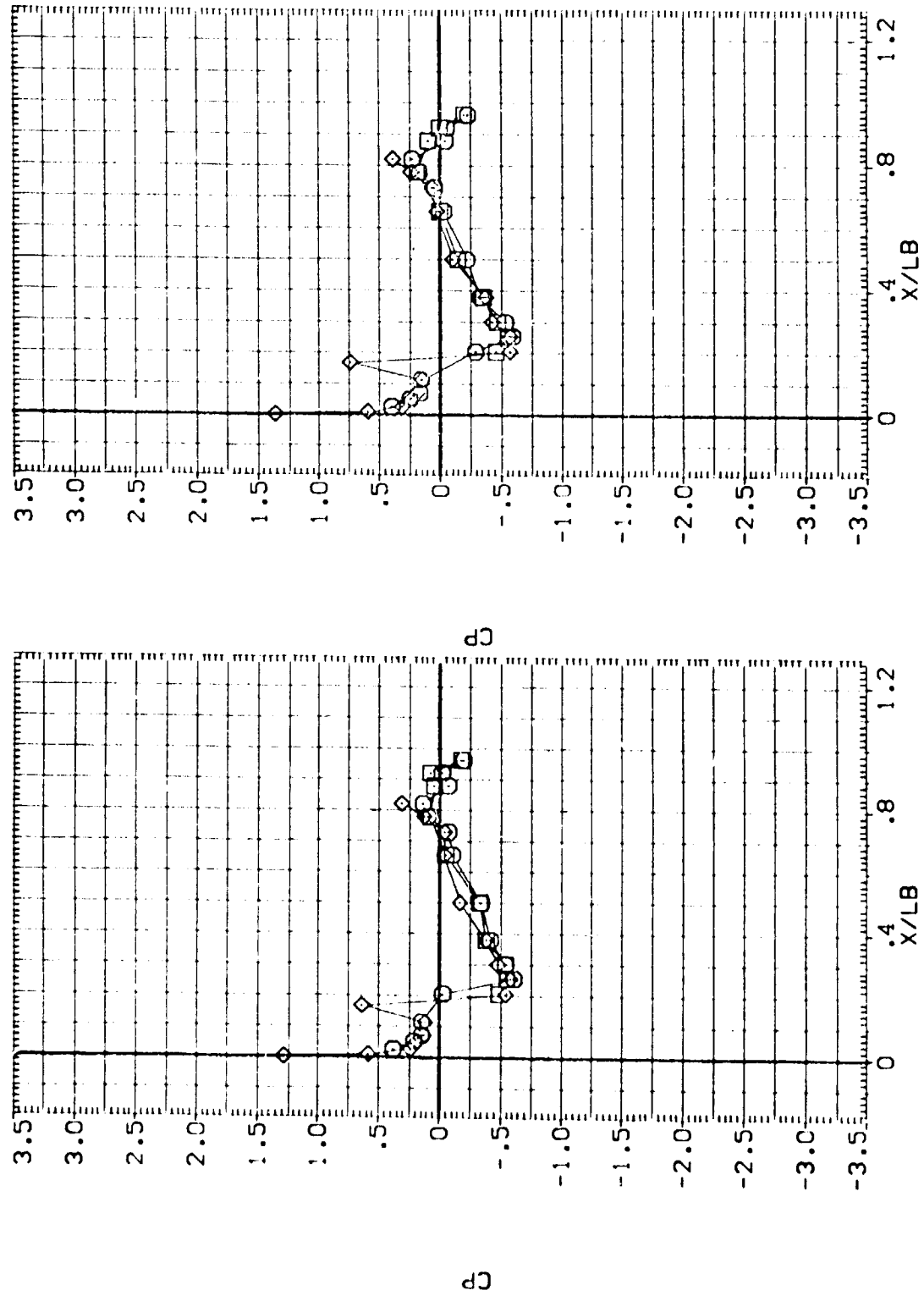
ELEVON 1.250  
 SPDBRK .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 ORB. FUSELAGE (RB:B33)

SYMBOL	PHI	BETA	ALPHA	PARAMETRIC VALUES		
				MACH	ELEVON	SPDBRK
○	150.000	-8.030	7.930	.000	1.250	.000
□	165.000	-4.000		.000	.000	.000
◇	180.000					



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES



ARC11-716 (A14 01+T12+S12N25+AT10 ORB. FUSELAGE (RB1B33))

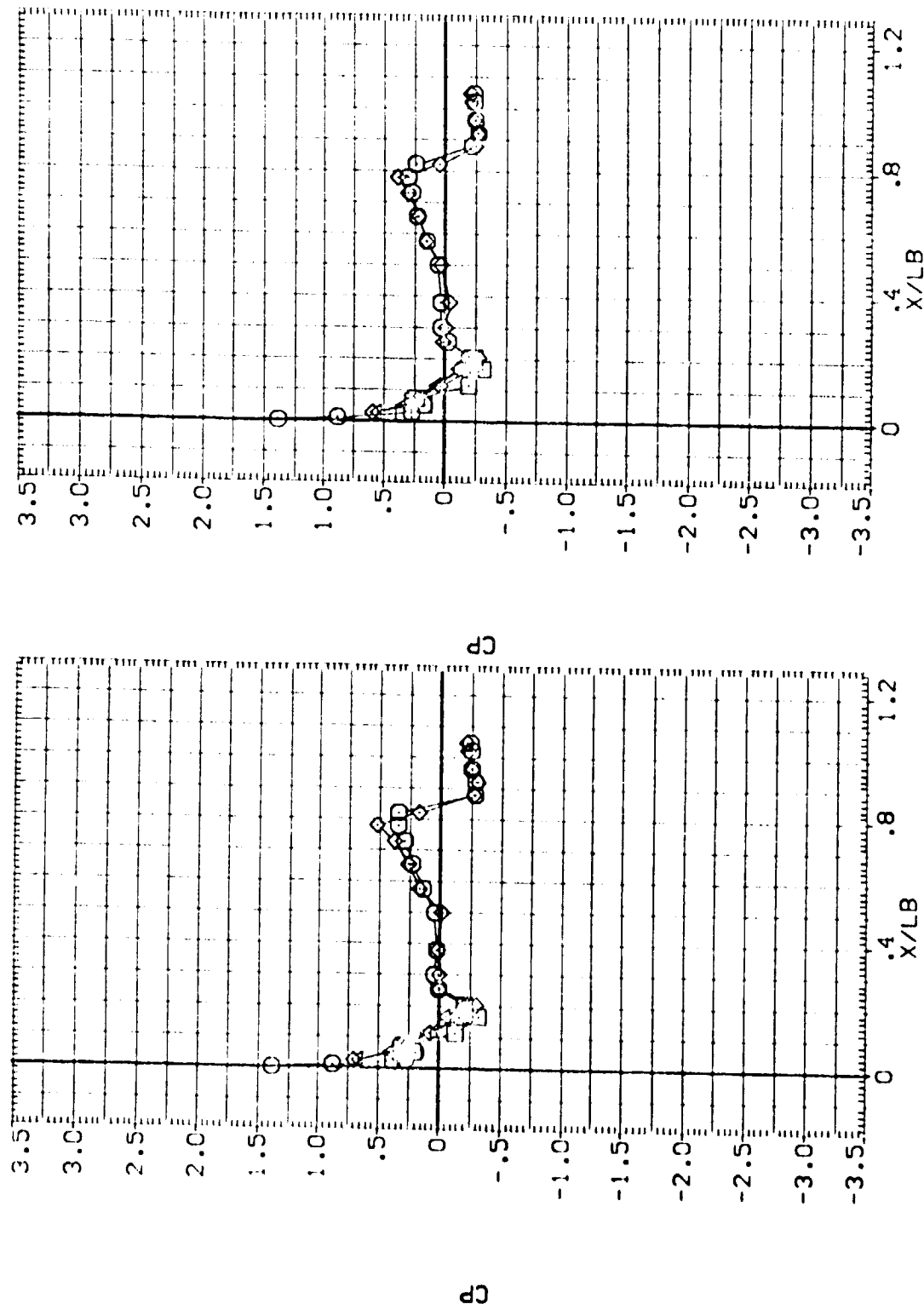
SYMBOL

PHI  
0.000  
20.000  
40.000  
55.000

BETA  
-2.030  
.040

ALPHA  
7.830

PARAMETRIC VALUES  
MACH 1.250  
ELEVON .000  
RUDDER .000  
SPOILER .000

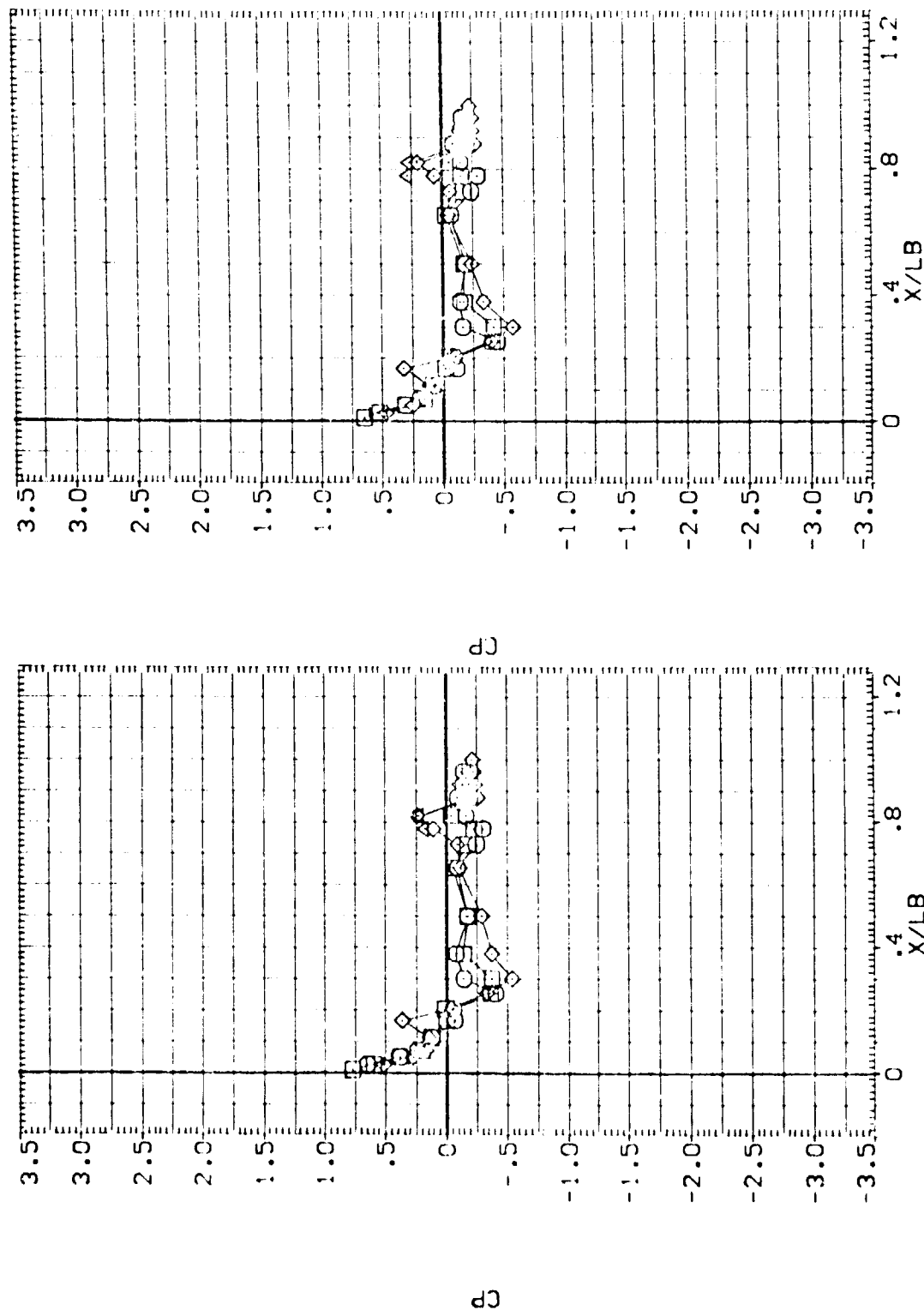


LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A4 01+T12+S12N25+AT10 ORB. FUSELAGE (RB1B33)

PARAMETRIC VALUES  
MACH 1.250 ELEVON .000  
RUDDER .000 SPDRY .000

SYMBOL PHI BETA<sub>0</sub> A<sub>1</sub>PH<sub>0</sub>  
70.000 -2.030 7.830  
90.000 .040  
120.000  
135.000

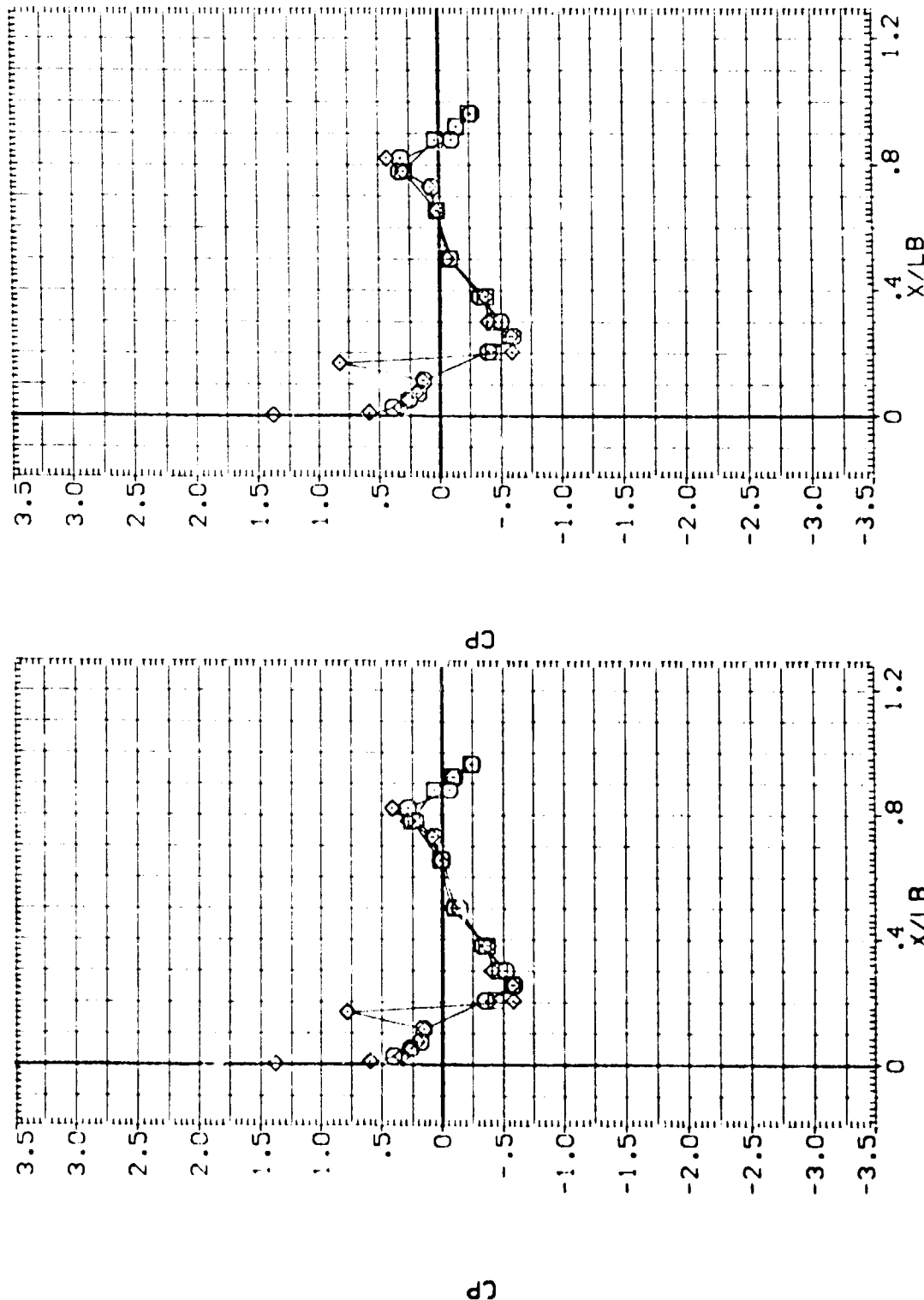


LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 ORB. FUSELAGE (RB1B33)

PARAMETRIC VALUES  
MACH 1.250 ELEVON .000  
RUDDER .000 SP.99K

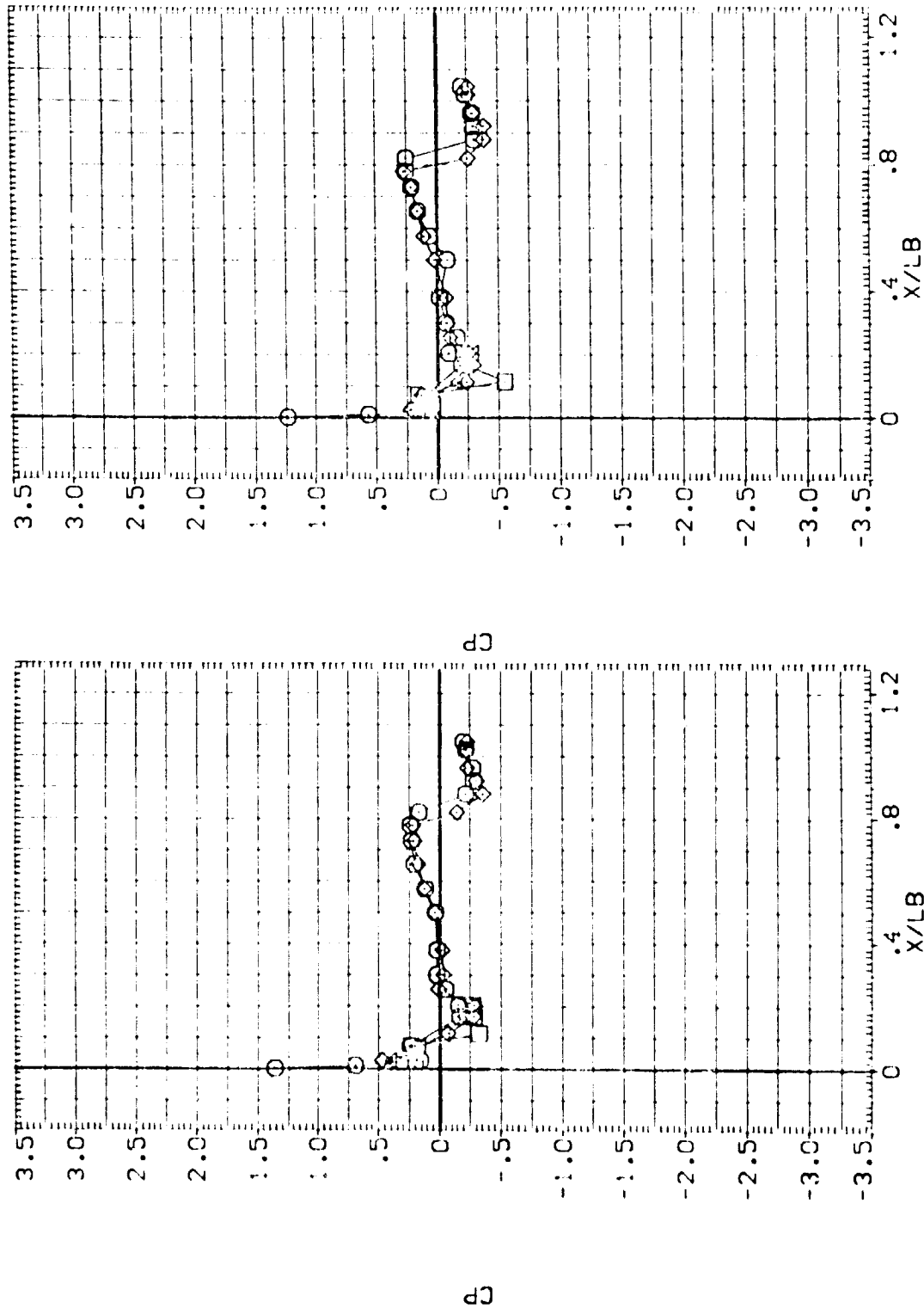
SYMBOL PHI BETA0 ALPHA0  
O 150.000 -2.030 7.830  
◇ 165.000 .040  
◇ 180.000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+112+S12N25+AT10 ORB. FUSELAGE (RB1B33)

SYMBOL	PHI	BETA	ALPHA	PARAMETRIC VALUES
○	.000	4.060	7.870	MACH 1.250 ELEVON .000
◇	20.000	8.110		RUDDER .000 SPOILER .000
△	40.000			
▽	55.000			



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC:1-716 1A14 01+T12+S12N25+AT10 ORB. FUSELAGE (RB1B33)

SYMBOL  
 ○ □ ◇ △

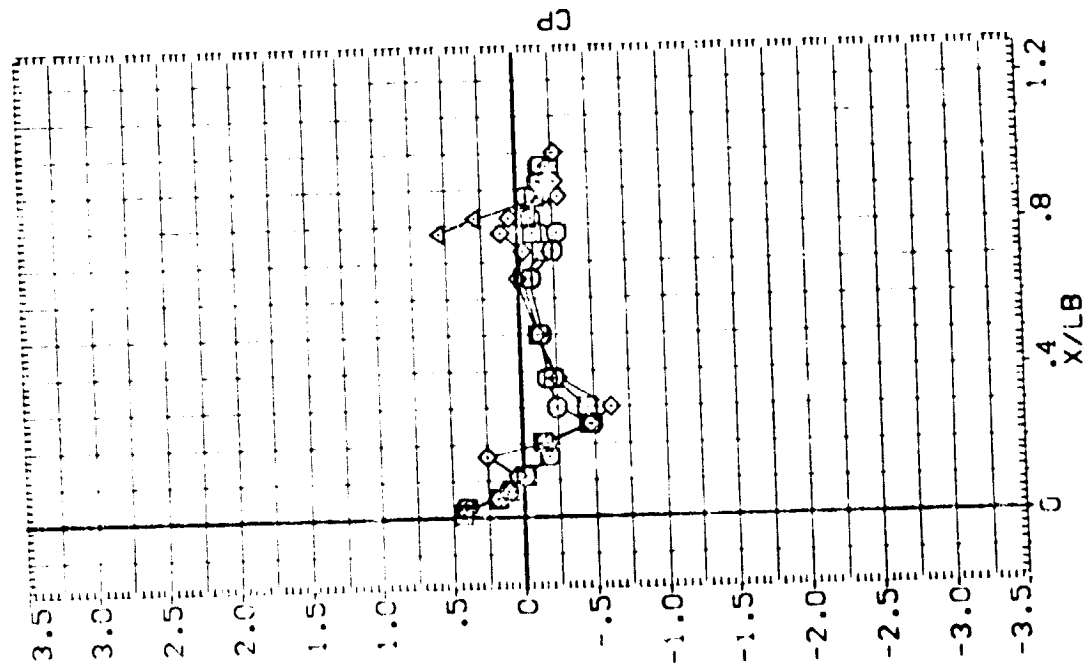
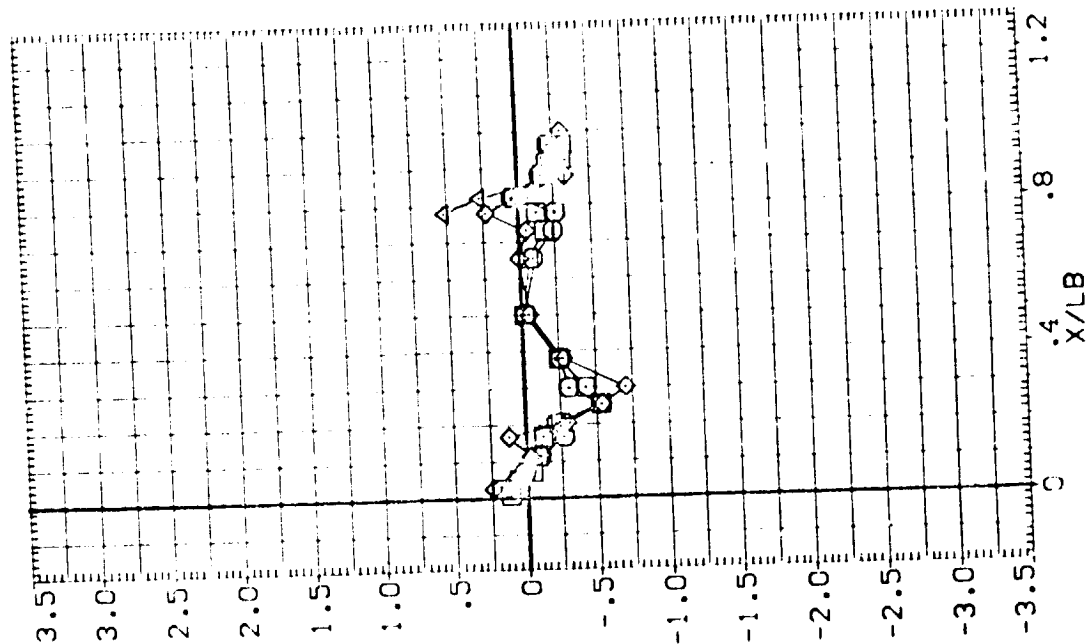
PHI  
 70.000  
 90.000  
 120.000  
 135.000

BETA0  
 4.060  
 8.110

ALPHA0  
 7.870

MACH  
 RUDDER

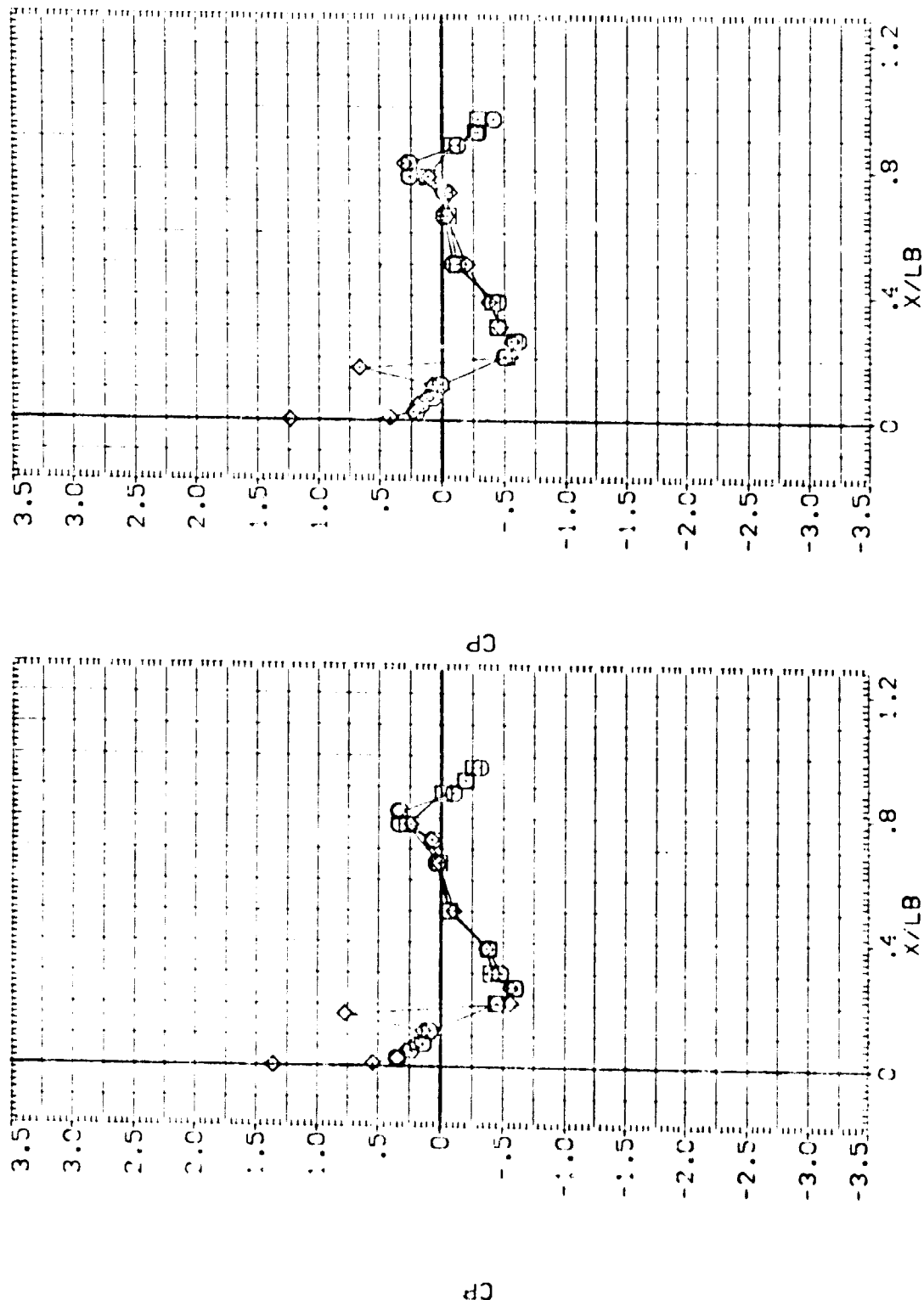
PARAMETRIC VALUES  
 1.250  
 .000  
 ELEVON  
 SPOBRK  
 .000  
 .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC:-7:6 1A14 01+T12+S12N25+AT10 ORB. FUSELAGE (RB1933)

SYMBOL	PHI	BETA	ALPHA	PARAMETRIC VALUES		
				MACH	ELEVON	SPDBRK
○	150.000	4.060	7.870	.000	.000	.000
◇	165.000	8.110		.000	.000	.000
◇	180.000					



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 C1+T12+S12N25+AT11 ORB. FUSELAGE (RB1934)

SYMBOL

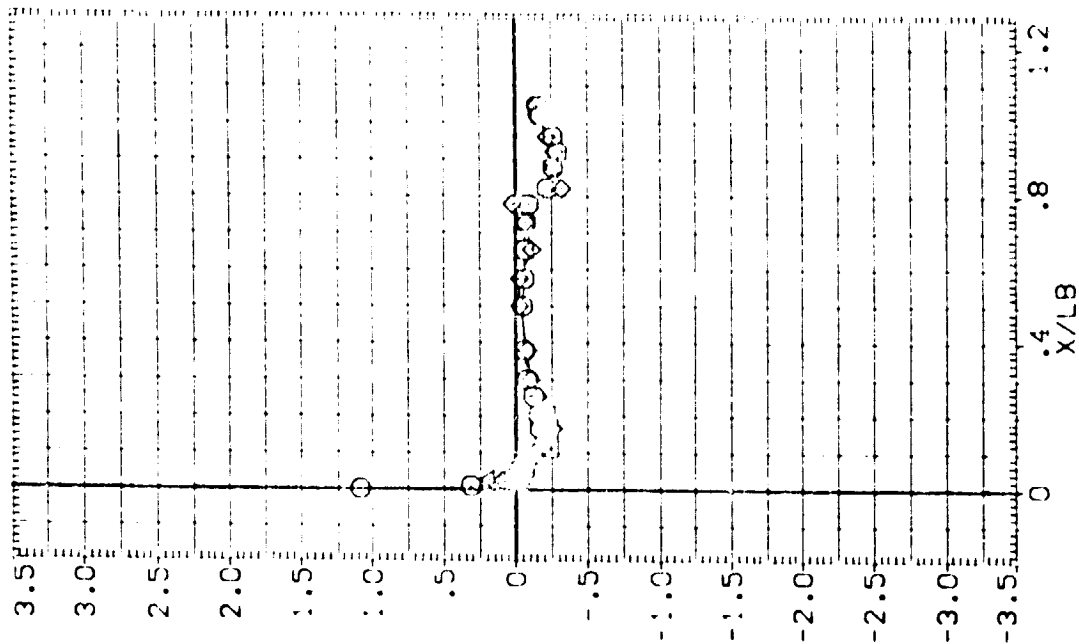
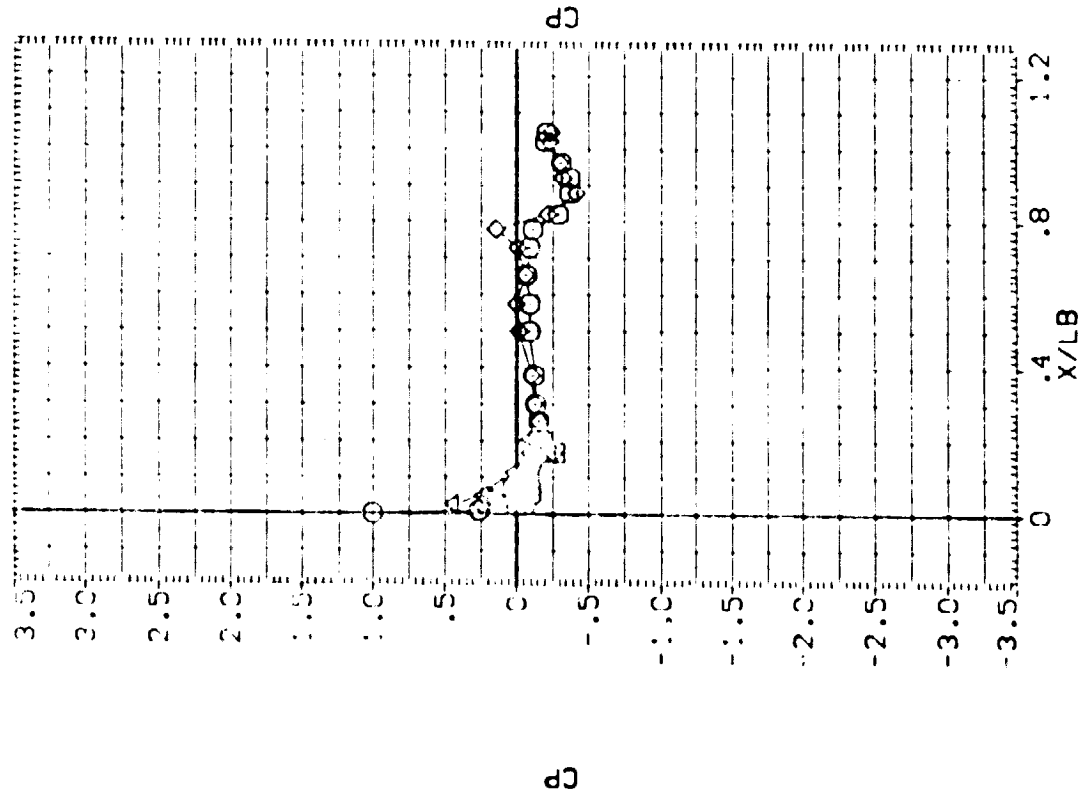
PHI .000  
20.000  
40.000  
55.000

BETA5 -7.980  
.030

ALPHA0 -8.010

MACH .600  
RUDDER

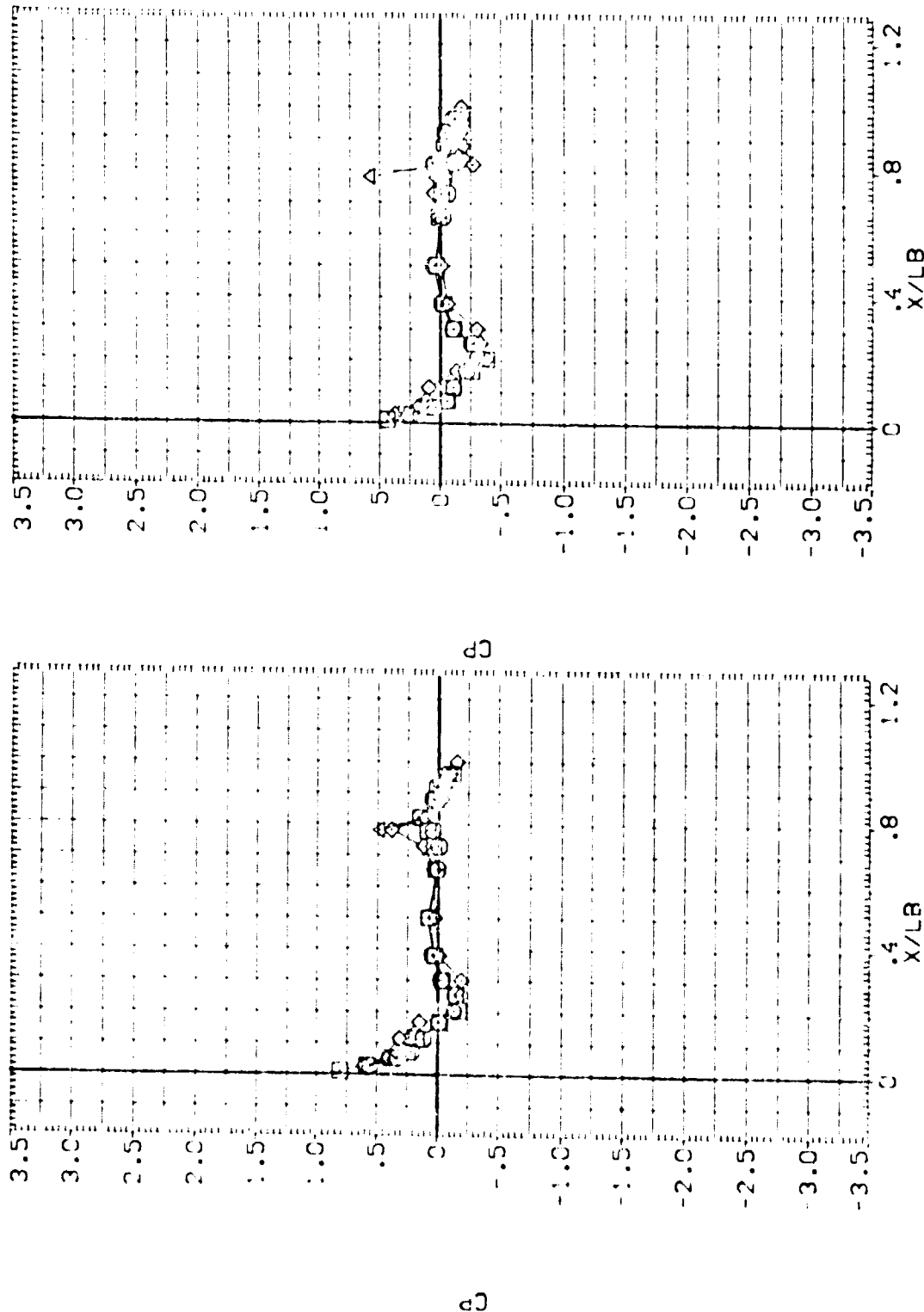
PARAMETRIC VALUES  
.000 ELEVON  
.000 SPOON



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 ORB. FUSELAGE (RB1B34)

SYMBOL	PHI	BETAC	ALPHA0	PARAMETRIC VALUES		
				MACH	ELEVCH	
○	70.000	-7.980	-8.010	RUDER	.000	SPOSRK
◇	90.000					
△	120.000					
▽	135.000					



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES



ARC11-7.6 1A14 01+T12+S12N25+AT11 ORB. FUSELAGE (RB1B34)

SYMBOL

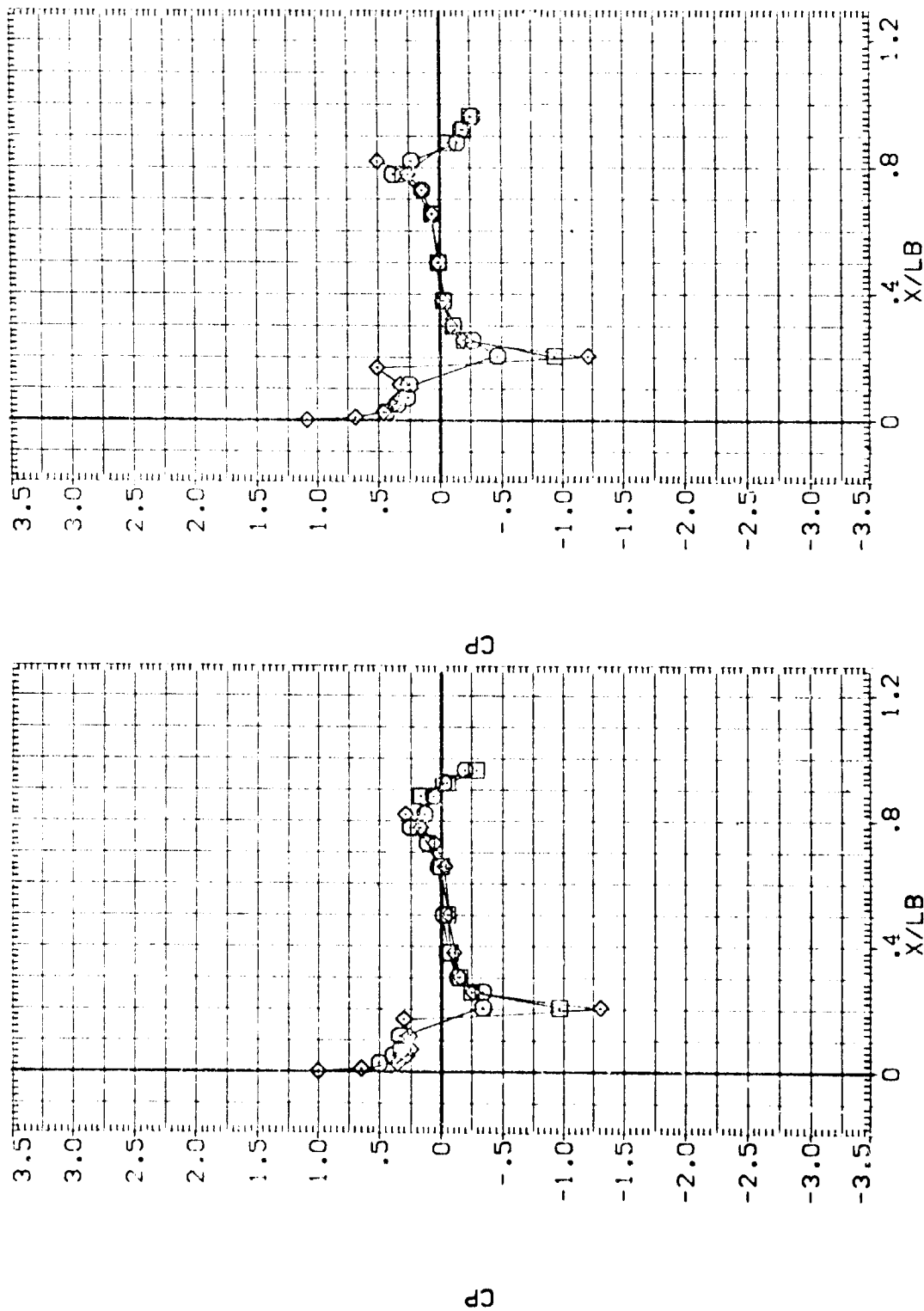
PHI  
150.000  
165.000  
180.000

BETAG  
-7.980  
.030

ALPHA0  
-8.010

PARAM. TRIC VALUES

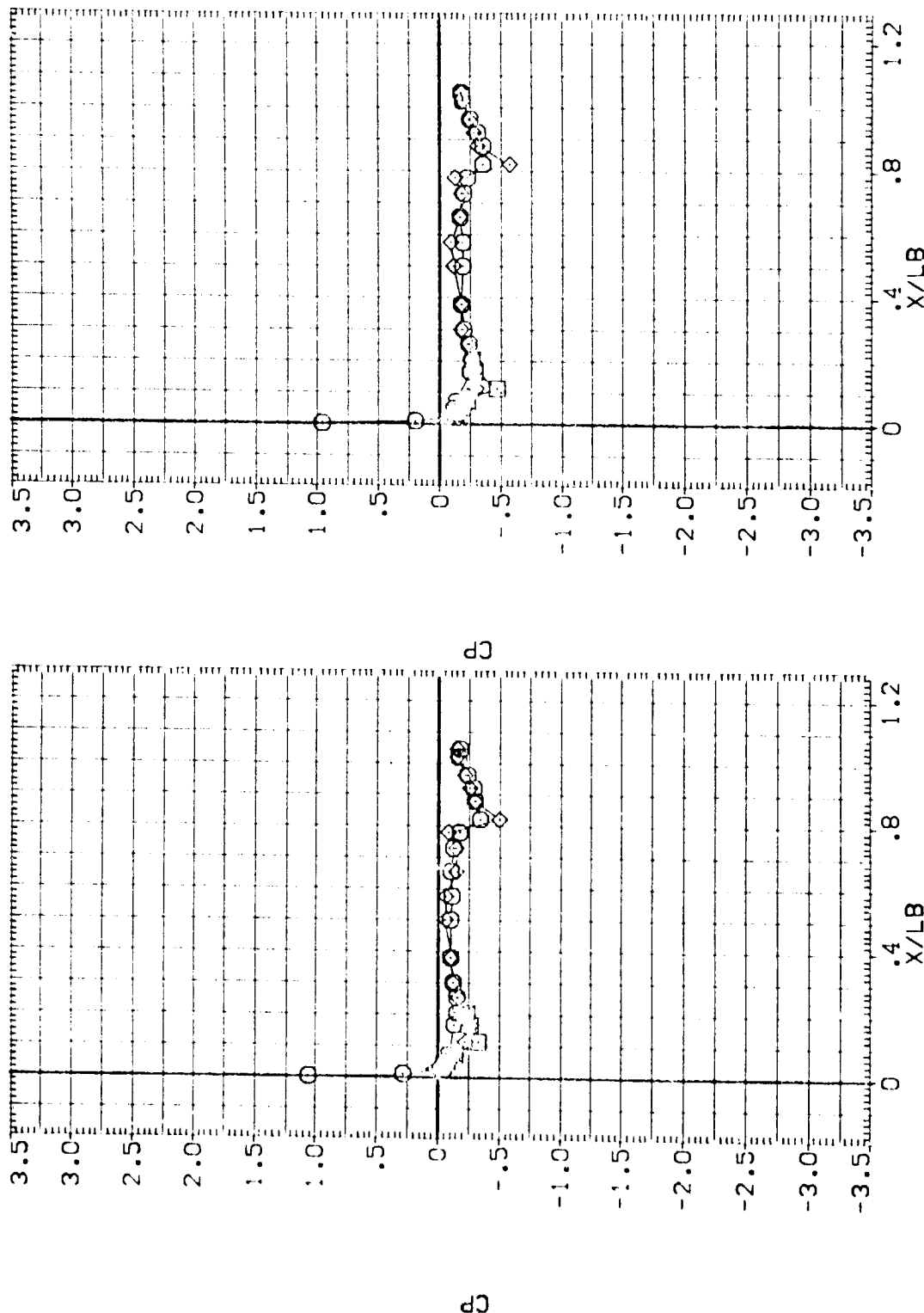
MACH  
RUDER  
.000  
ELEVON  
SPDBRK  
.000  
.000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 ORB. FUSELAGE (RB1B34)

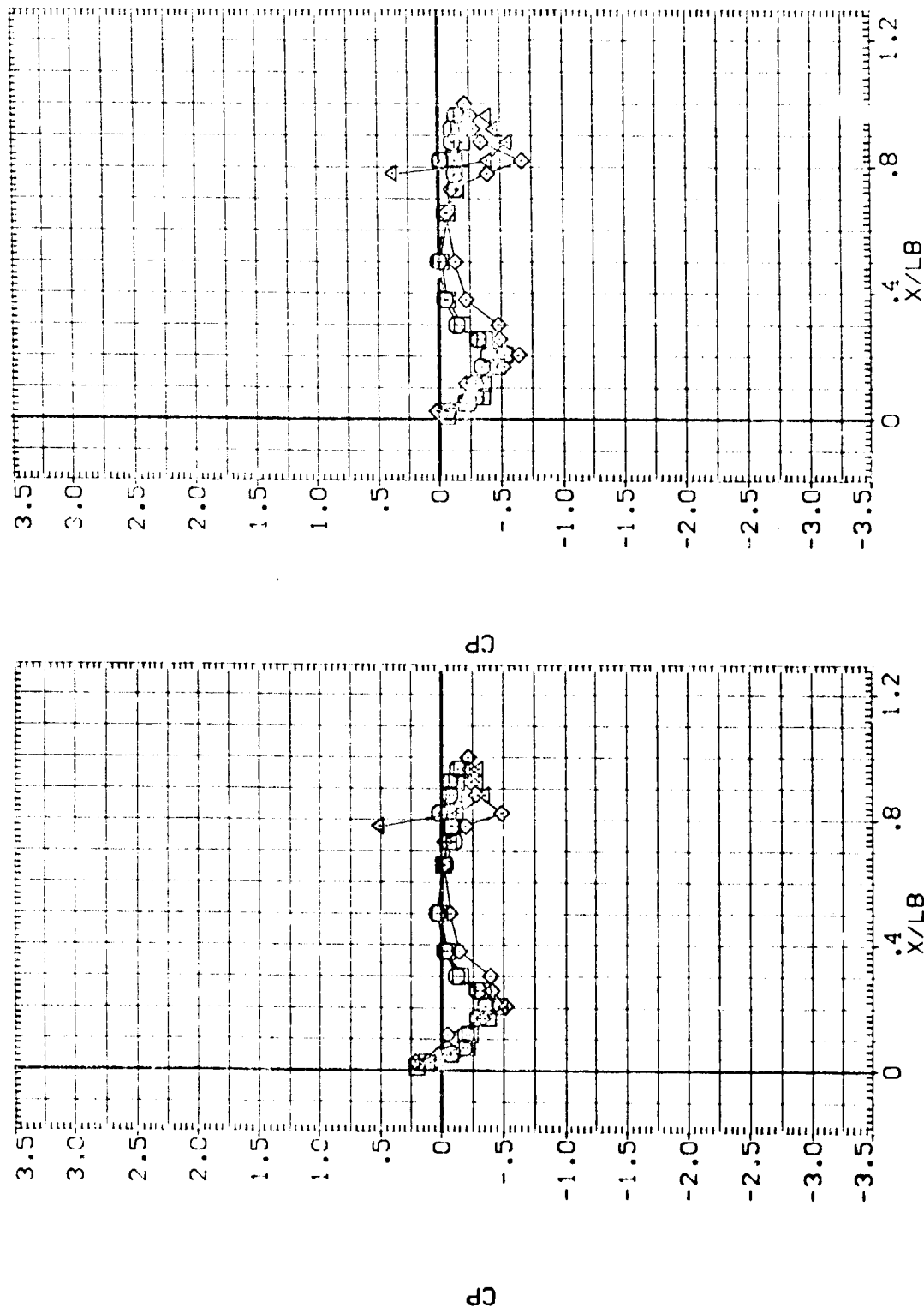
MBO	PHI	BETA	ALPHA	PARAMETRIC VALUES		
				MACH	ELEV	SPDRK
○	.000	4.090	-8.000	.600	.000	.000
◇	20.000	8.130		.000		
△	40.000					
	55.000					



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 ORB. FUSELAGE (RB1934)

SYMBOL	PHI	BETA	ALPHA	MACH	ELEVON	SPORX
○	70.000	4.090	-8.000	.600	.000	.000
□	90.000	8.130		.000		
◇	120.000					
△	135.000					



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES



ARC11-716 1A14 01+T12+S12N25+AT11 ORB. FUSELAGE (RB1B34)

SYMBOL

○  
□  
◇

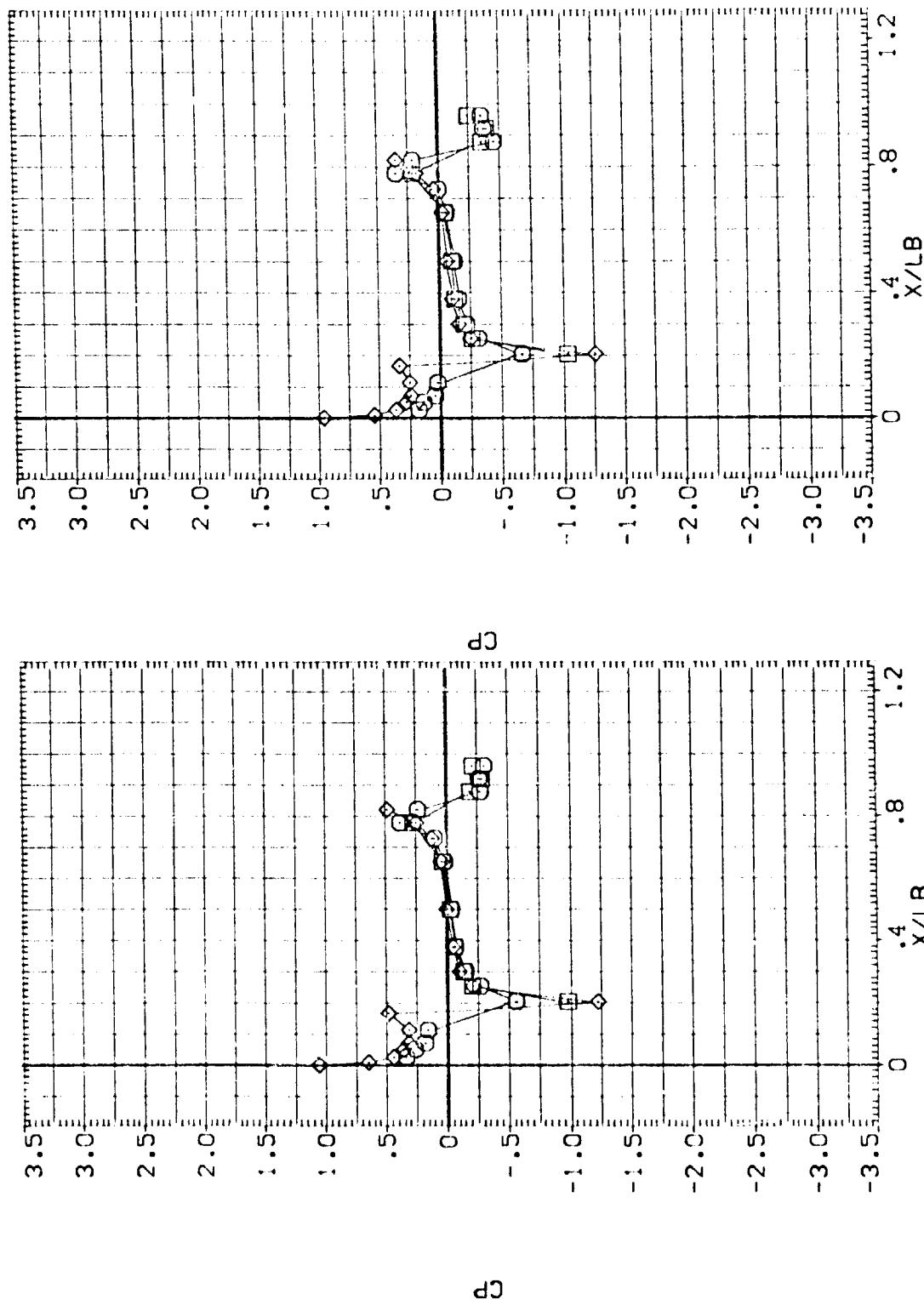
PHI  
150.000  
165.000  
180.000

BETAG  
4.090  
8.130

ALPHA0  
-8.000

PARAMETRIC VALUES

MACH .600  
RUDDER .000  
ELEVON .000  
SPOBRK .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 ORB. FUSELAGE (RB1B34)

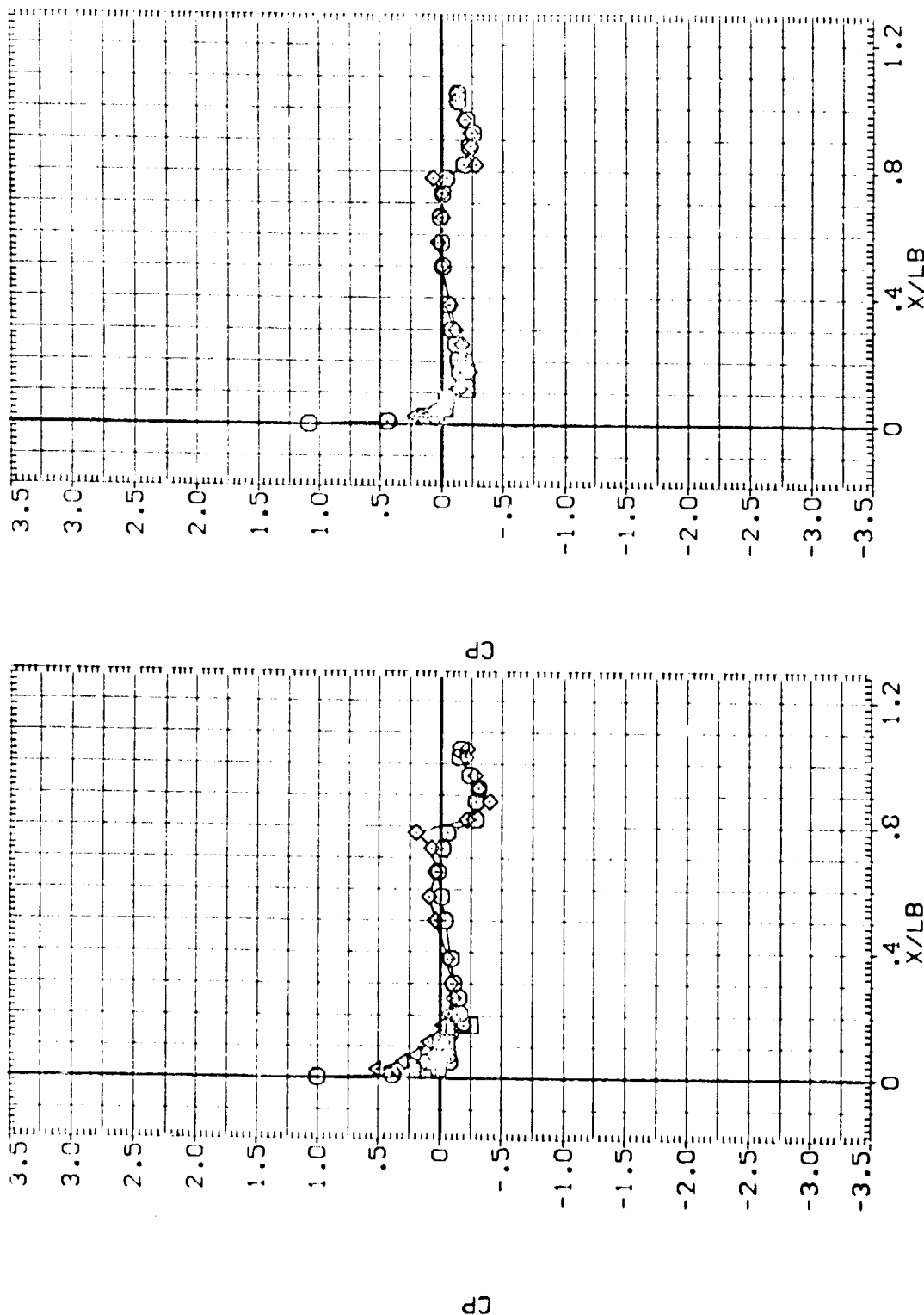
SYMBOL  
O  
□  
△

PHI .000  
20.000  
40.000  
55.000

BETA0 -8.030  
.030

ALPHA0 -3.10

PARAMETRIC VALUES  
MACH .500  
RUDDER .000  
ELEVON .000  
SPOBRK .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+112+S12N25+AT11 ORB. FUSELAGE (RB1B34)

SYMBOL

○ □ ◇ △

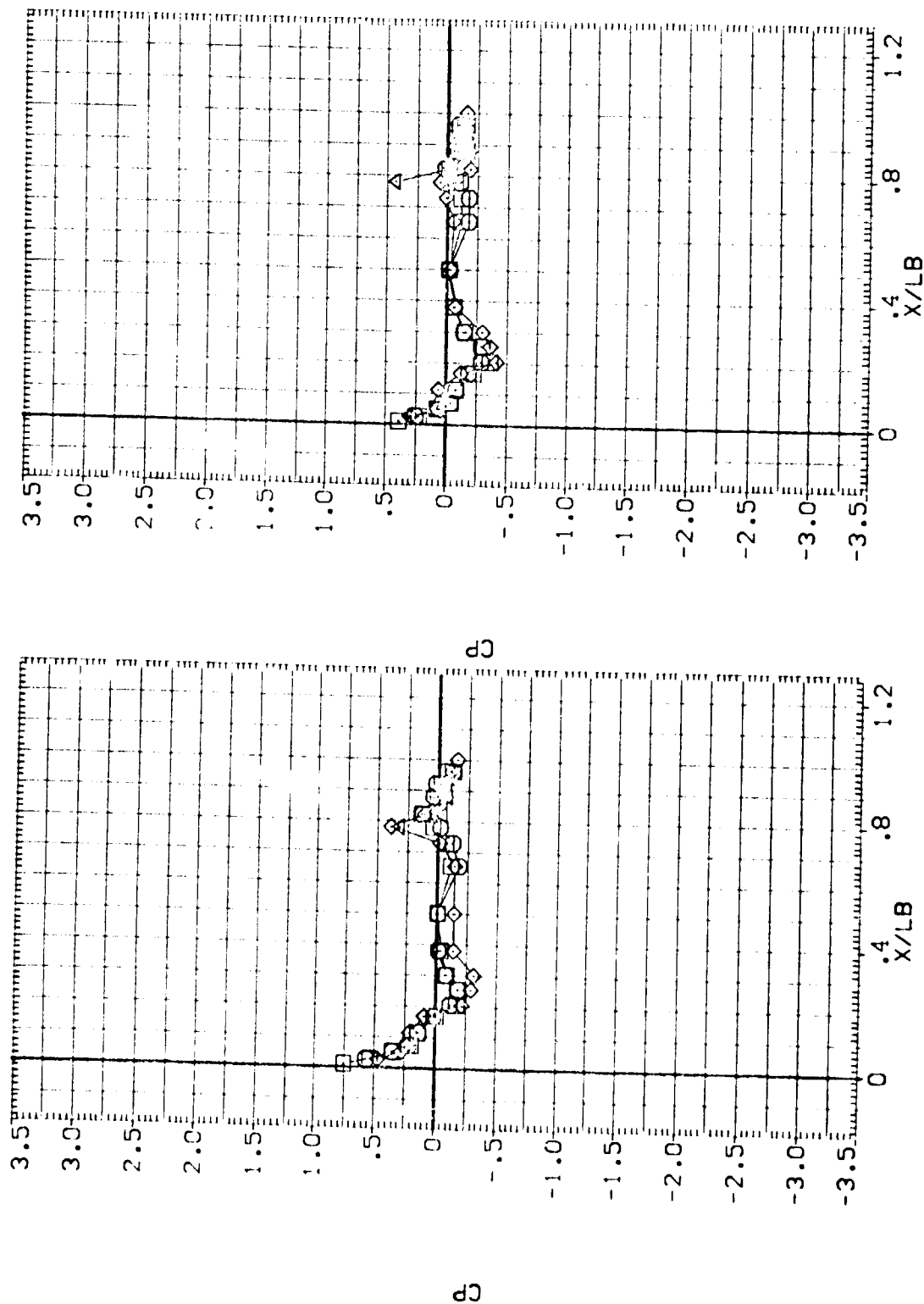
PHI 70.000  
90.000  
120.000  
135.000

BETA0 -8.030  
.030

ALPHA0 -.310

MACH .600  
RUDDER .000

ELEVON .000  
SPDBRK .000



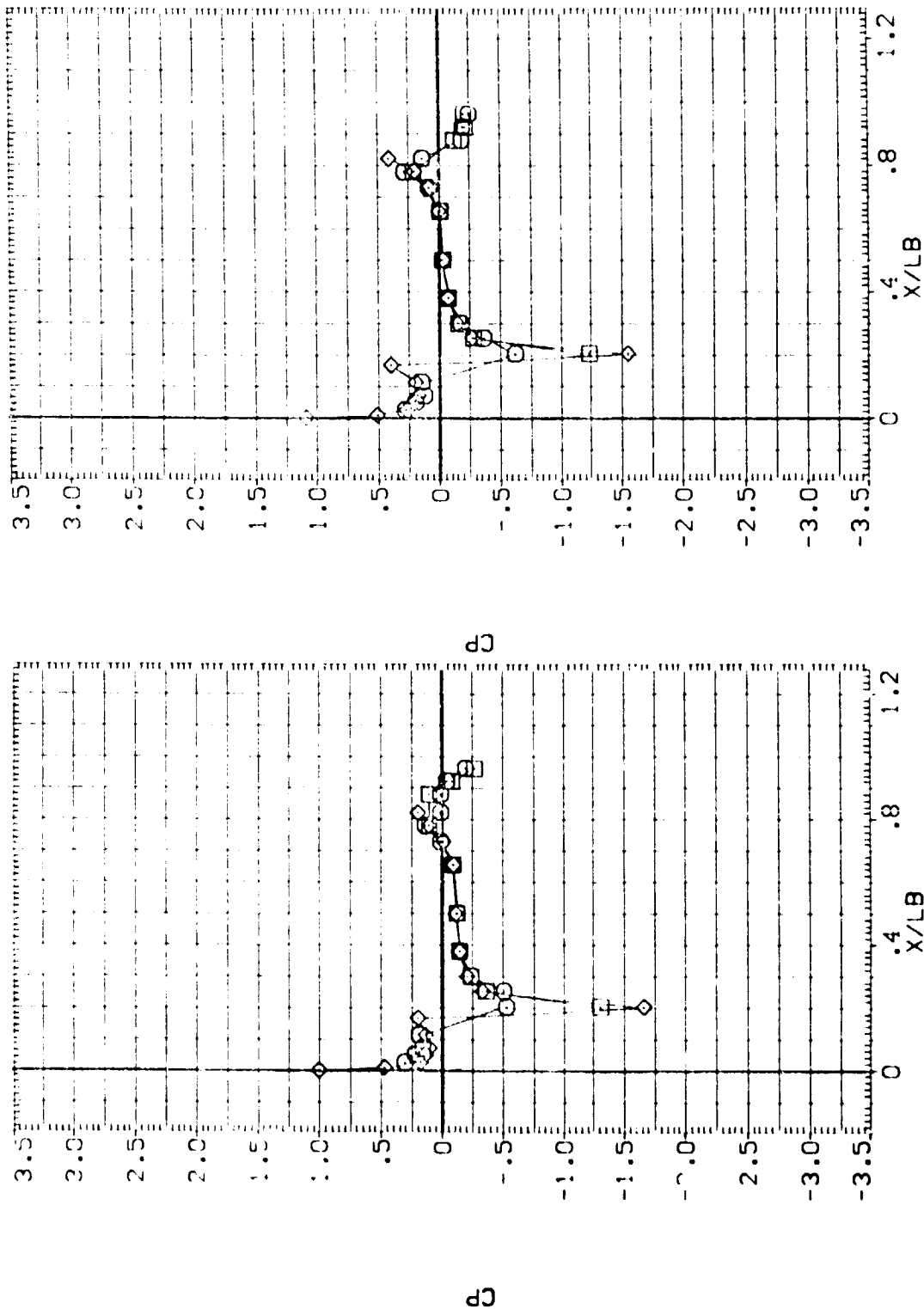
LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 ORB. FUSELAGE (RB1B34)

SYMBOL  
 ○  
 □  
 ◇

PHI BETA0 ALPHA0  
 150.000 -8.030 -.310  
 165.000 .030  
 180.000

PARAMETRIC VALUES  
 MACH .600 ELEVON .000  
 RUDDER .000 SPOILER .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+112+S12N25+AT11 ORB. FUSELAGE (RB1B34)

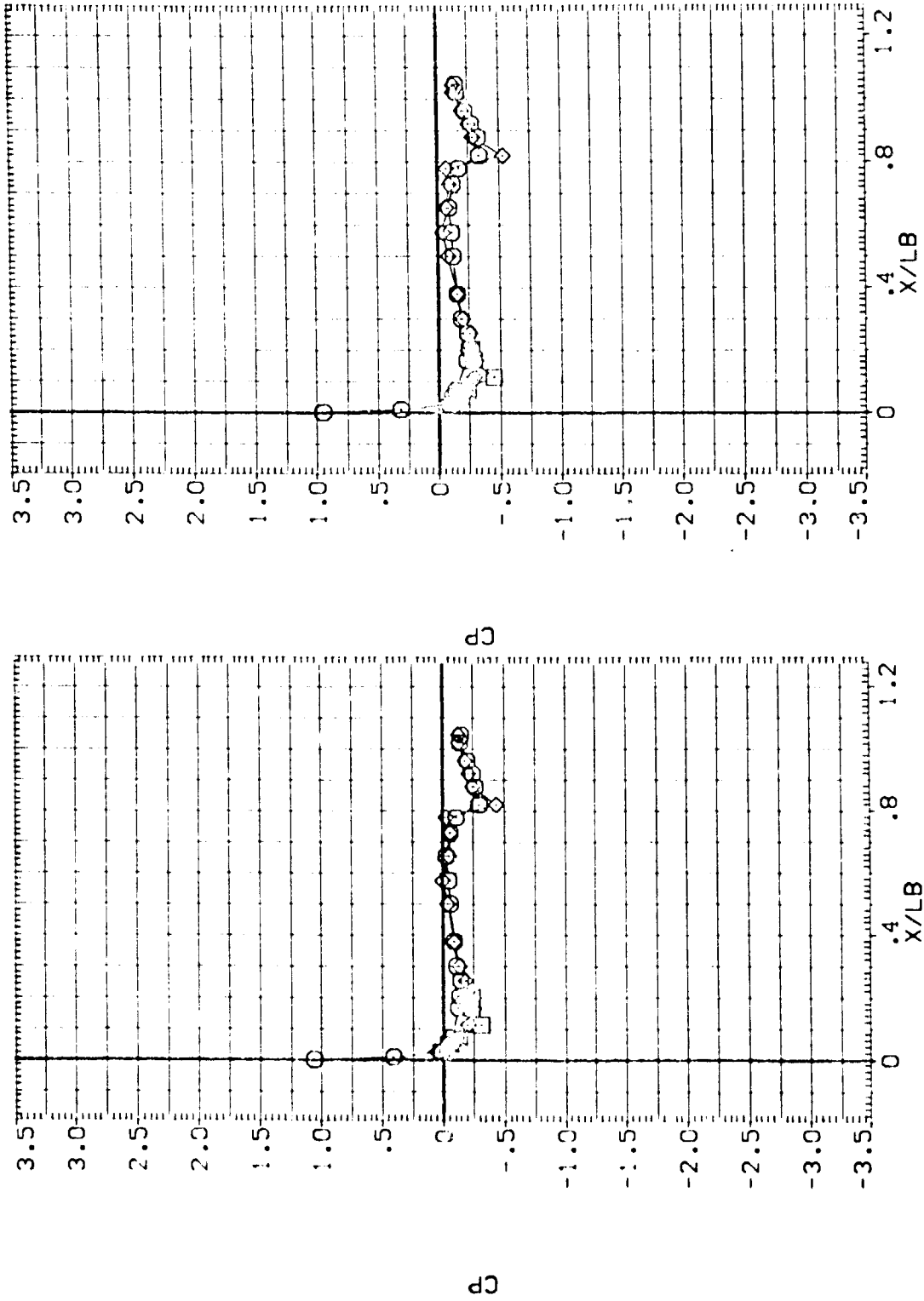
SYMBOL  
○  
◇  
△

PHI  
.000  
20.000  
40.000  
55.000

BETA  
4.080  
8.110

ALPHA  
-3.320

PARAMETRIC VALUES  
MACH .600 ELEVON .000  
RUDDER .000 SPOILER .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES



ARC11-716 IA14 01+T12+S12N25+AT11 ORB. FUSELAGE (RB:B34)

SYMBOL

○  
◇  
△

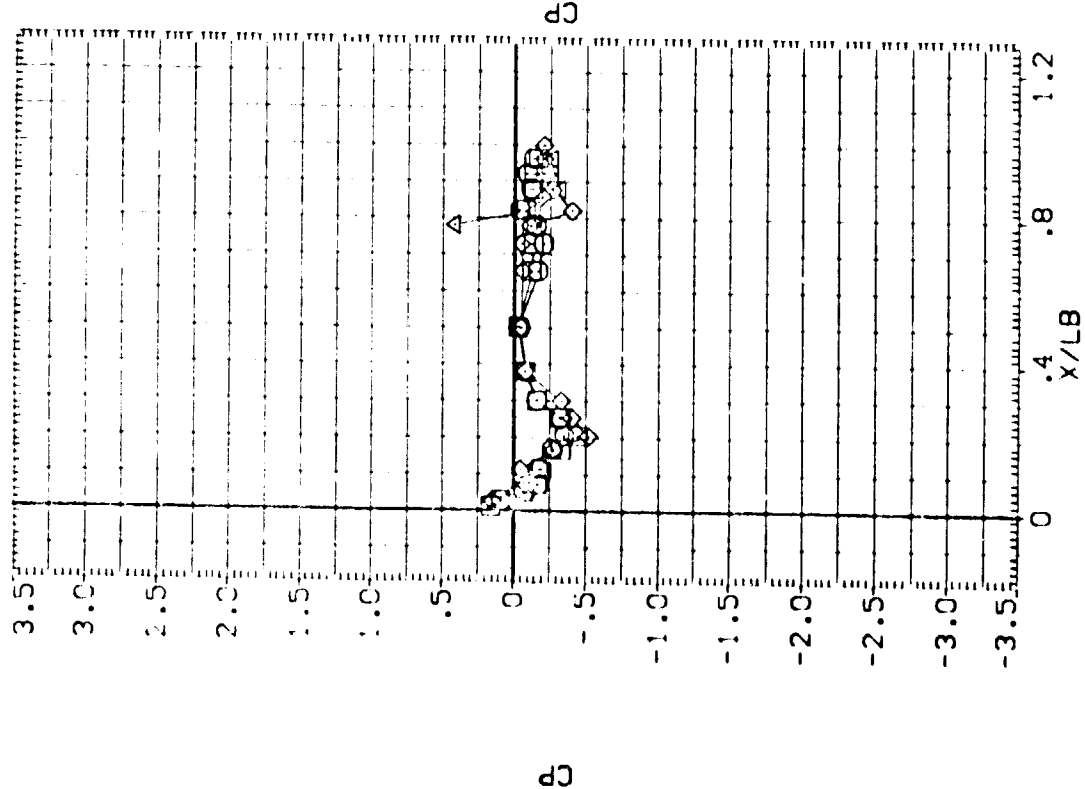
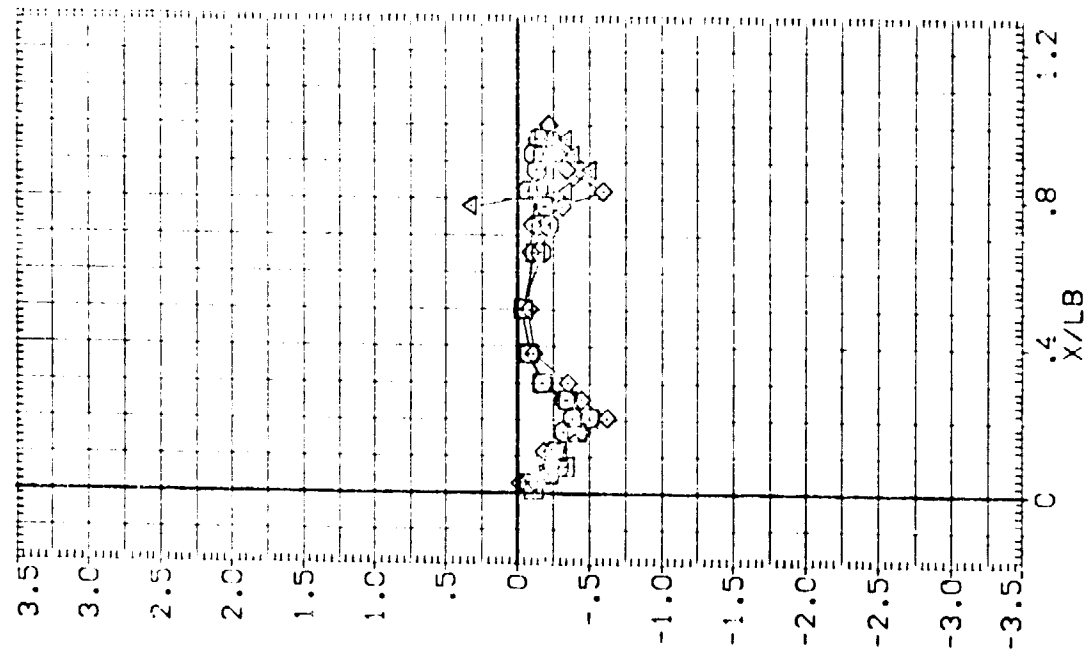
PHI 70.000  
90.000  
120.000  
135.000

BETAC 4.080  
8.110

ALPHA0 -3.320

MACH .600  
RUDDER .000

PARAMETRIC VALUES  
ELEVON .000  
SPOBRK .300



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC:1-7:6 1A:4 01+T12+S12N25+AT11 0R9. FUSELAGE (R81B34)

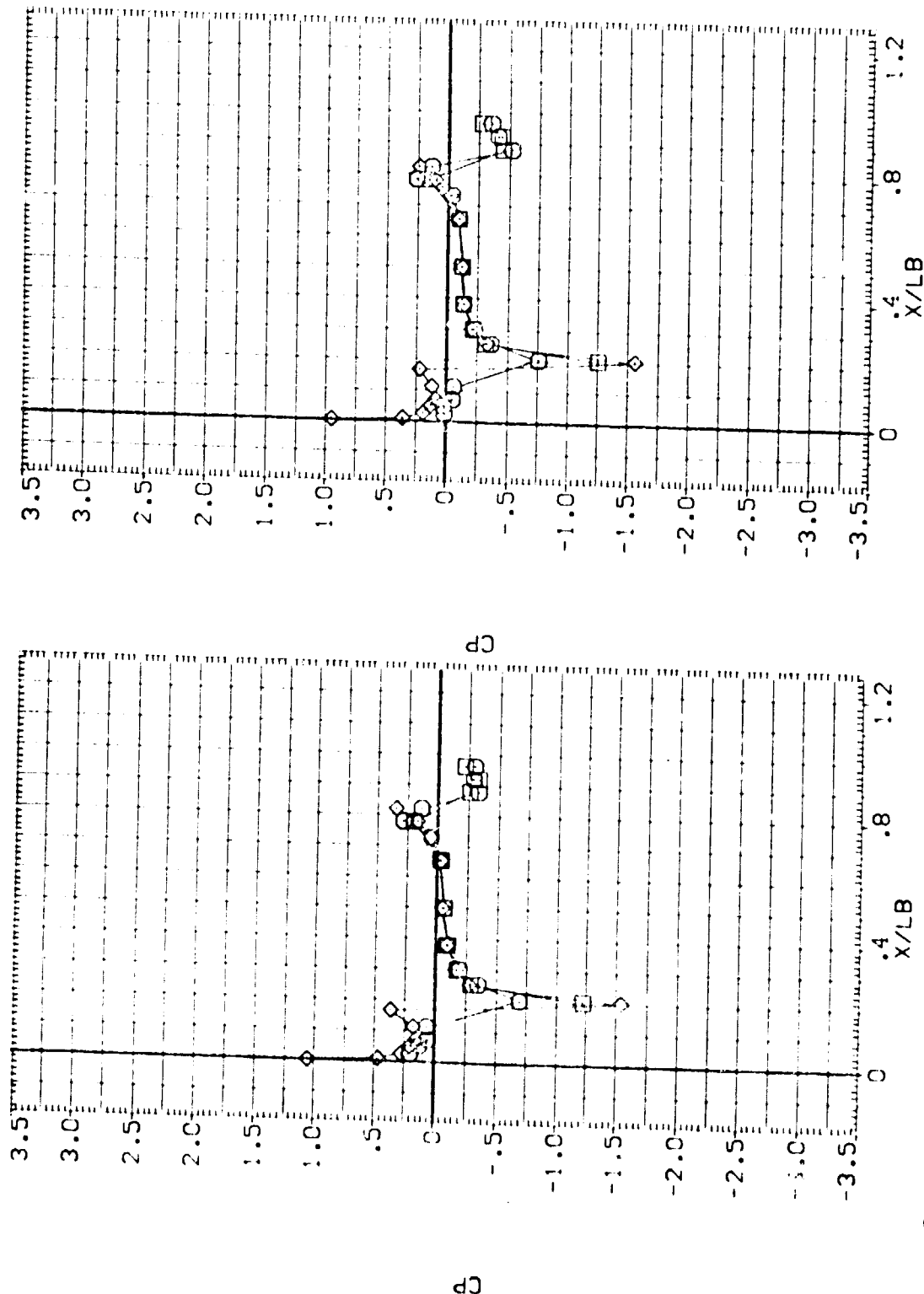
SYMBOL  
 ○  
 ◇

PHI 150.000  
 165.000  
 180.000

BETA 4.080  
 8.110

ALPHA 0  
 -3.20

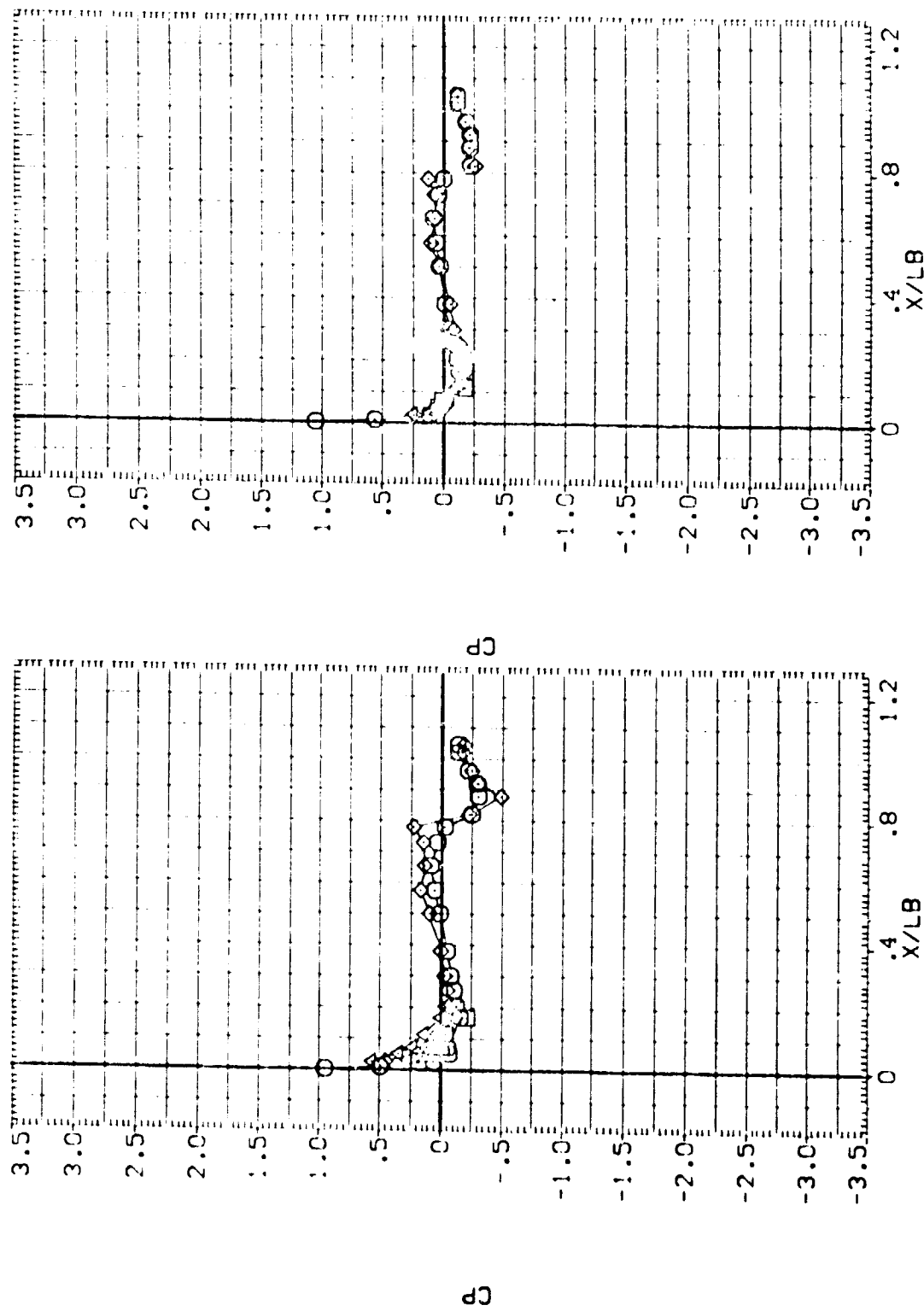
PARAMETRIC VALUES  
 MACH .800  
 RUDDER .000  
 ELEVON .000  
 SPOON .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+112+S:2N25+AT11 ORB. FUSELAGE (RB1B34)

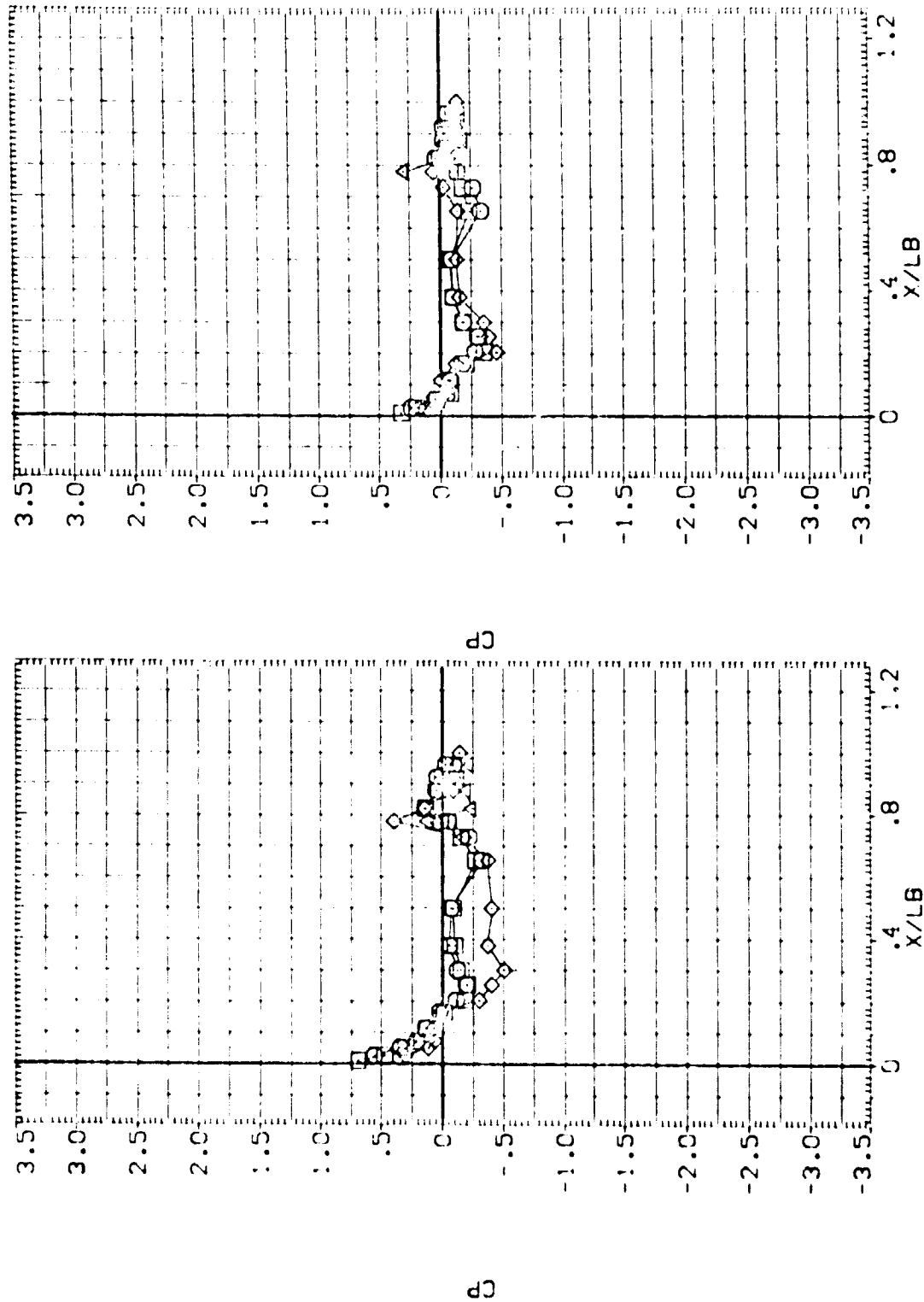
SYMBOL	PHI	BETA	ALPHA	PARAMETRIC VALUES
○	.000	-8.010	7.890	MACH .600 ELEV. .000
◇	20.000	.040		RUDDER .000 SPOBR. .000
◇	40.000			
△	55.000			



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 ORB. FUSELAGE (RB1B34)

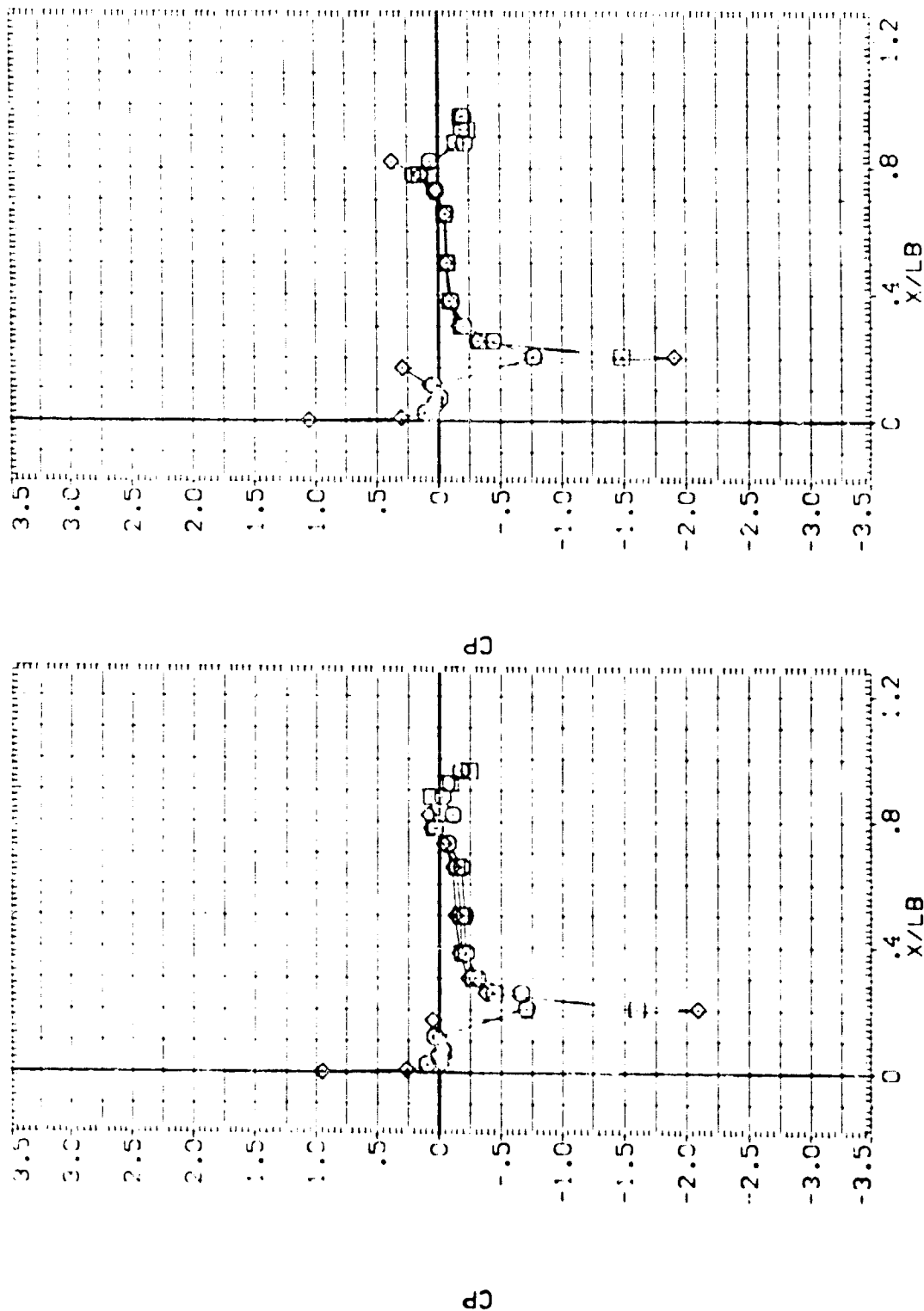
SYMBOL	PHI	BETA	ALPHA	PARAMETRIC VALUES	
○	70.000	-8.010	7.890	MACH	.600
□	90.000	.040		ELEVON	.000
◇	120.000			RUDDER	.000
△	135.000			SPOILER	.000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 CR6. FUSELAGE (R81B34)

SYMBOL	PHI	BETAS	ALPHAS	MACH	PARAMETRIC VALUES
○	150.000	-8.010	7.890	R00R	.500 ELEVON .000
◇	165.000	.040			.000 SPOON .000
◇	180.000				

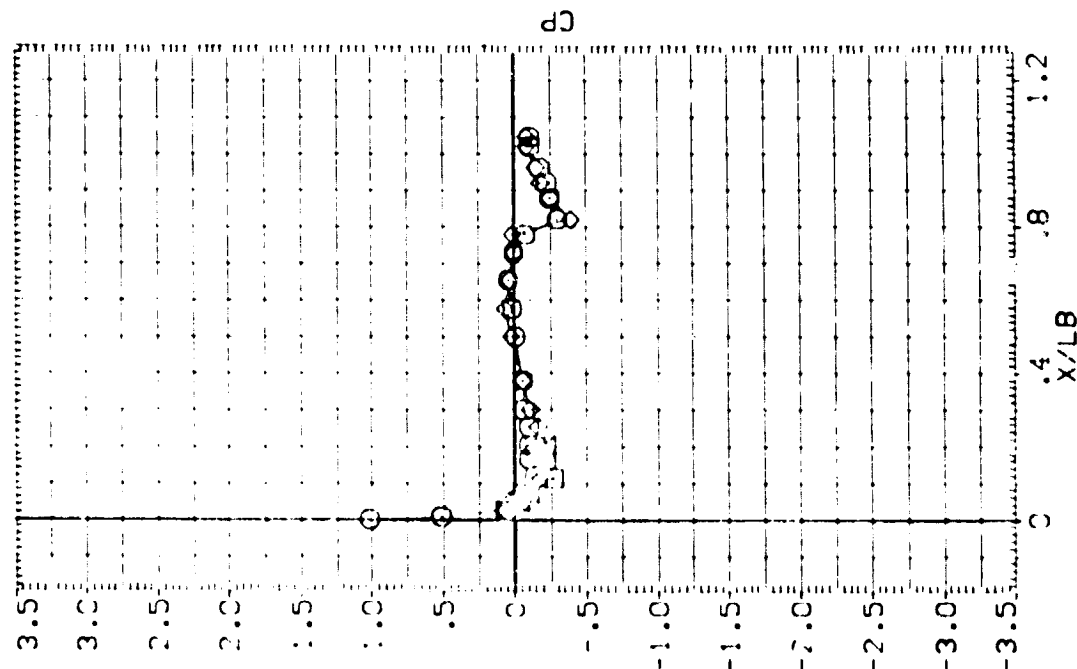
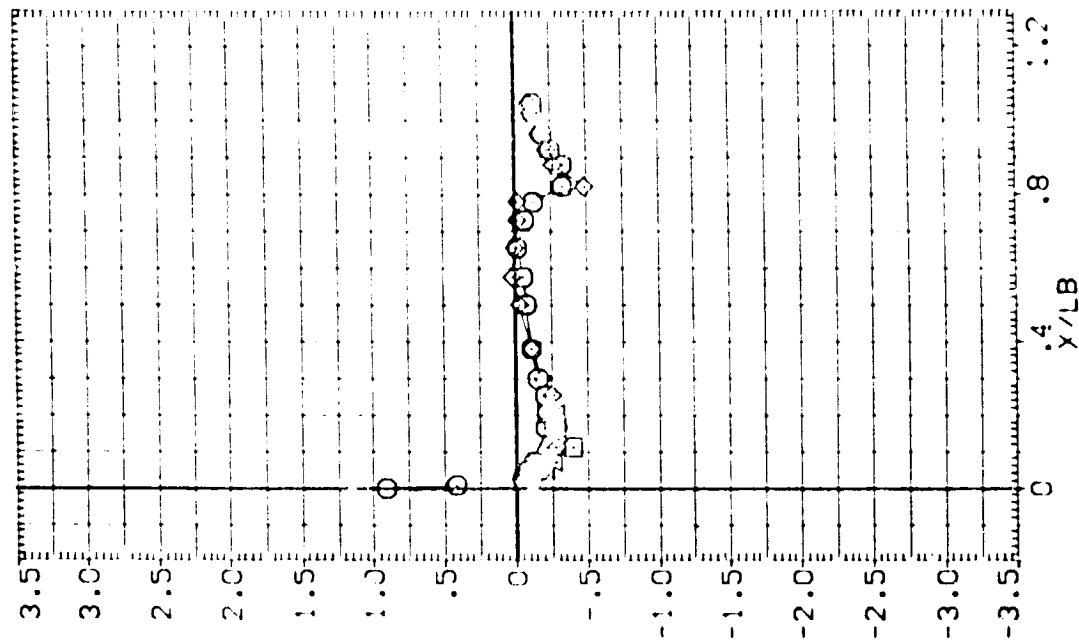


LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC:-7:6 1A14 C1:T:2+S:2N25+AT1: ORB. FUSELAGE (RB1B34)

PARAMETRIC VALUES  
MACH .600 ELEVON .000  
RUDDER .000 SPEED- .000

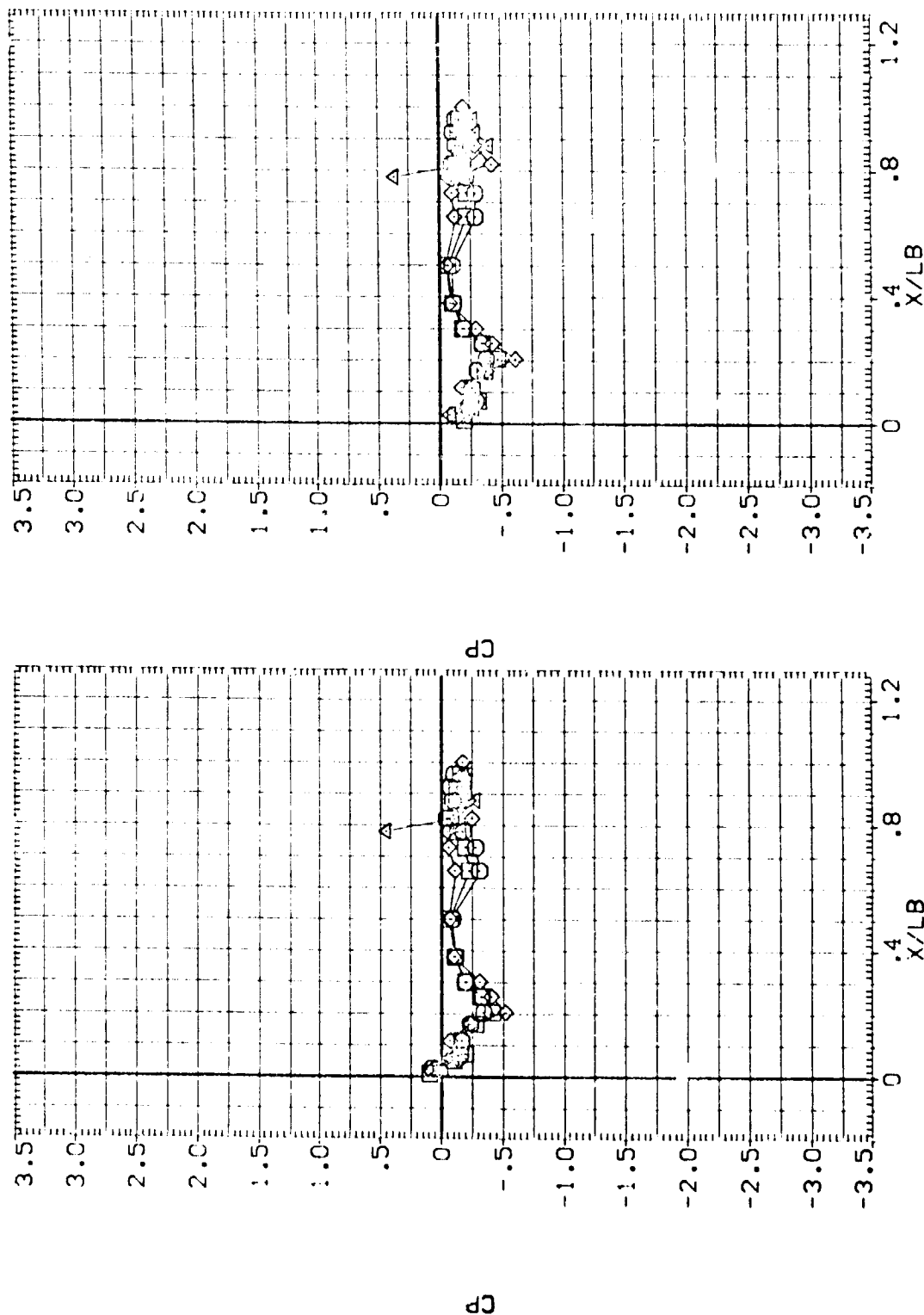
SYMBOL PW: BETAO ALPHAB  
O .000 4.100 7.500  
X 20.000 8.170  
Y 40.000  
Z 55.000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01:T:2+S:2N25+AT11 ORB. FUSELAGE (RB1934)

SYMBOL	PHI	BETA	ALPHA	PARAMETRIC VALUES		
				MACH	ELEV	SPDR
○	70.000	4.100	7.900	.500	.000	.000
□	90.000	8.170		.000	.000	.000
◇	120.000					
△	135.000					



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 ORB. FUSELAGE (RB1B34)

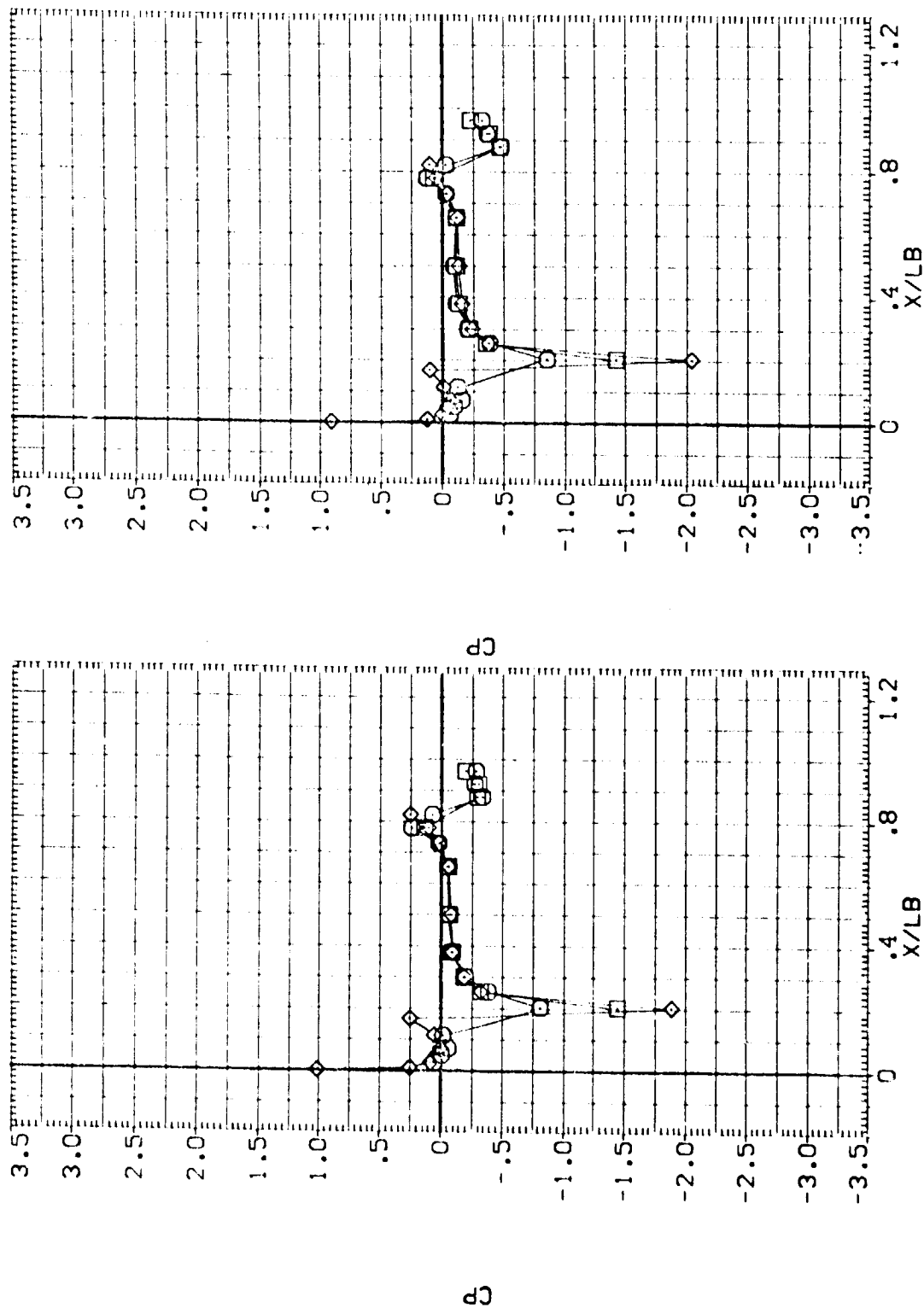
SYMBOL

PHI  
150.000  
165.000  
180.000

BETA  
4.100  
8.170

ALPHA  
7.900

PARAMETRIC VALUES  
MACH .600 ELEVON .000  
RUDDER .000 SPOILER .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES



ARC11-716 1A14 01+T12+S12N25+AT11 ORB. FUSELAGE (RB1B38)

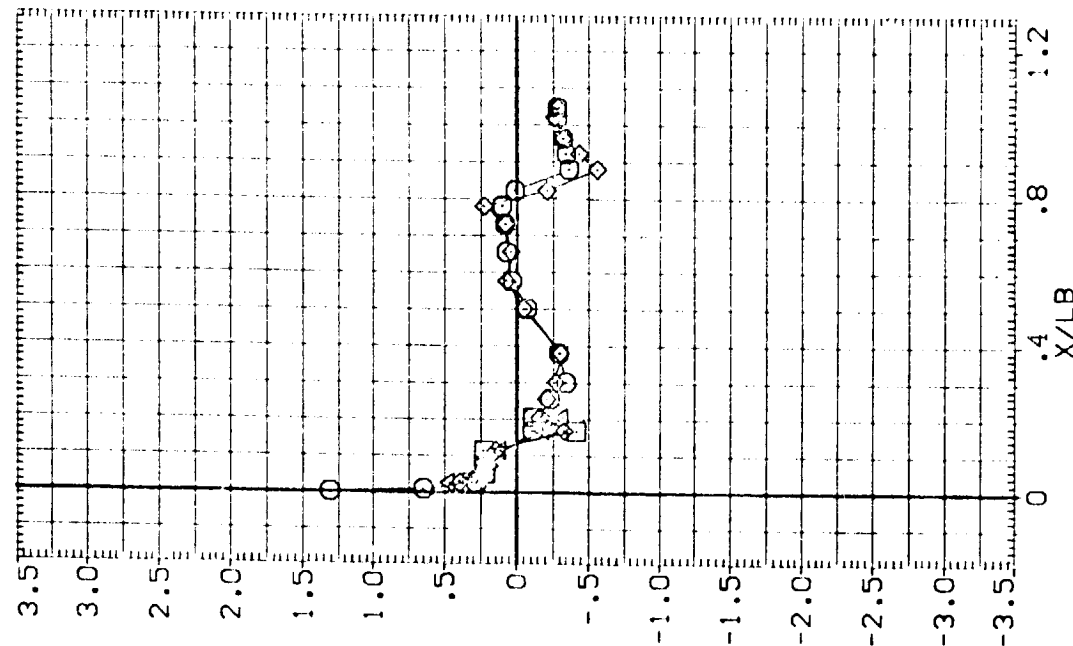
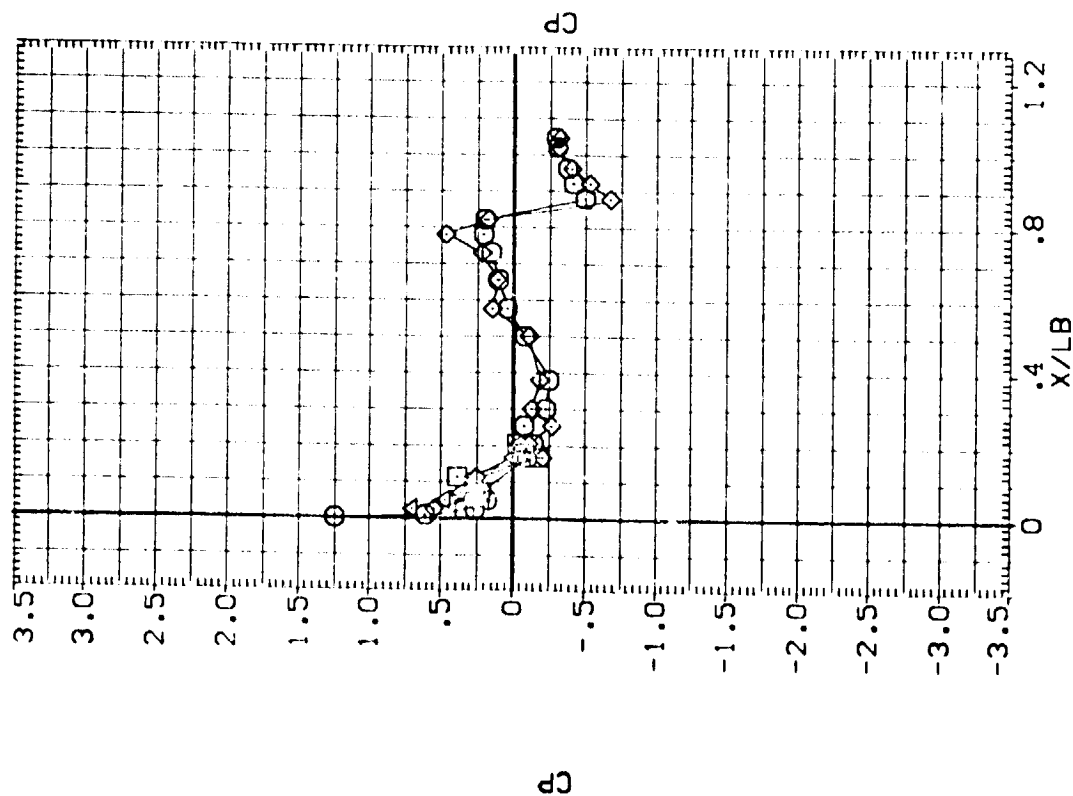
SYMBOL  
 ○ □ ◇ △

PHI .000  
 20.000  
 40.000  
 55.000

BETA0 -8.020  
 .030

ALPHA0 -8.080

PARAMETRIC VALUES  
 MACH 1.050  
 RUDDER .000  
 ELEVON .000  
 SPOBRK .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 ORB. FUSELAGE (RB1B38)

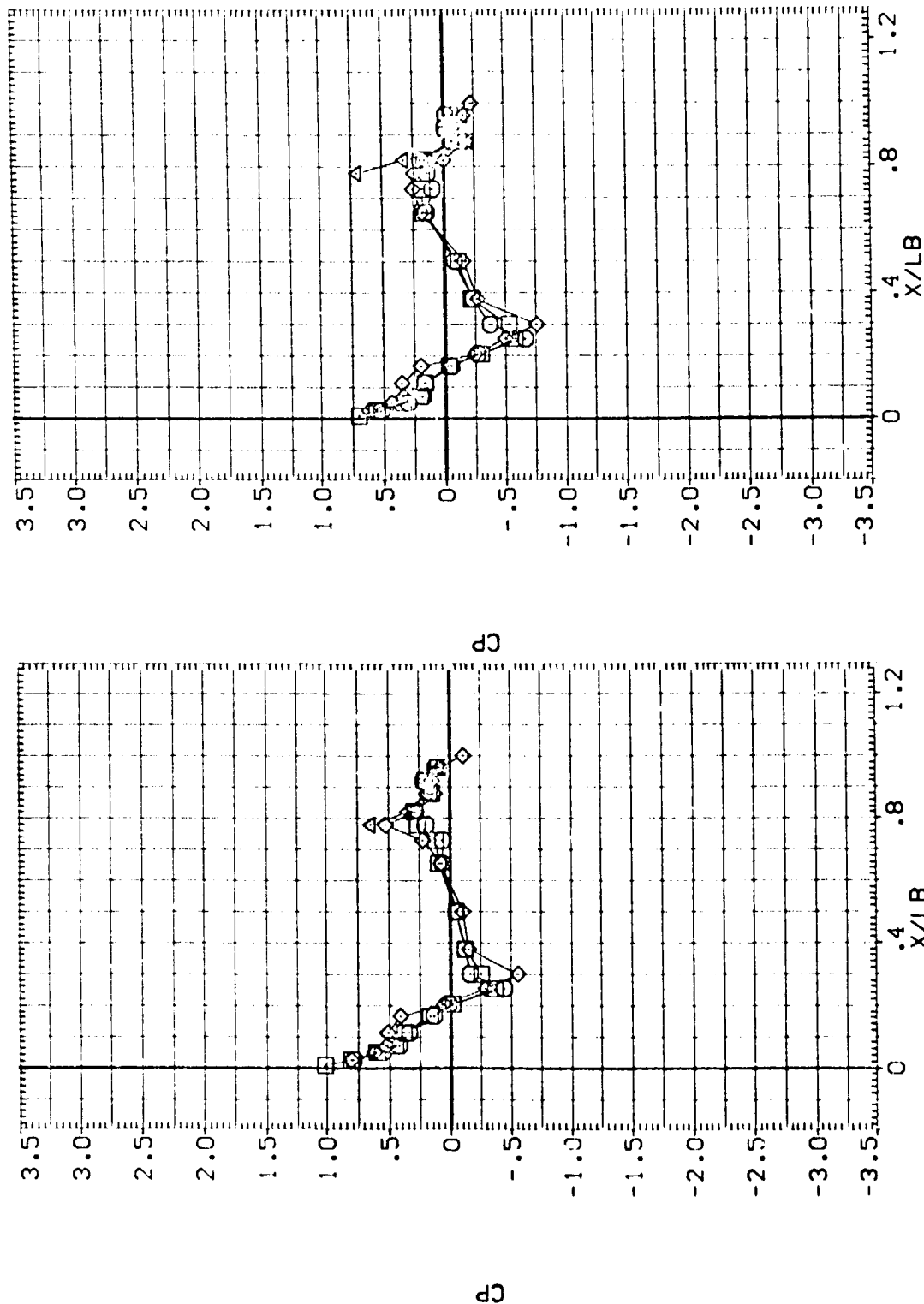
SYMBOL  
○  
◇  
△

PHI  
70.000  
90.000  
120.000  
135.000

BETA0  
-8.020  
.030

ALPHA0  
-8.080

PARAMETRIC VALUES  
MACH 1.050  
RUDDER .000  
ELEVON .000  
SPCBK .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-71S IA14 01+T12+S12N25+AT11 ORB. FUSELAGE (RB1B38)

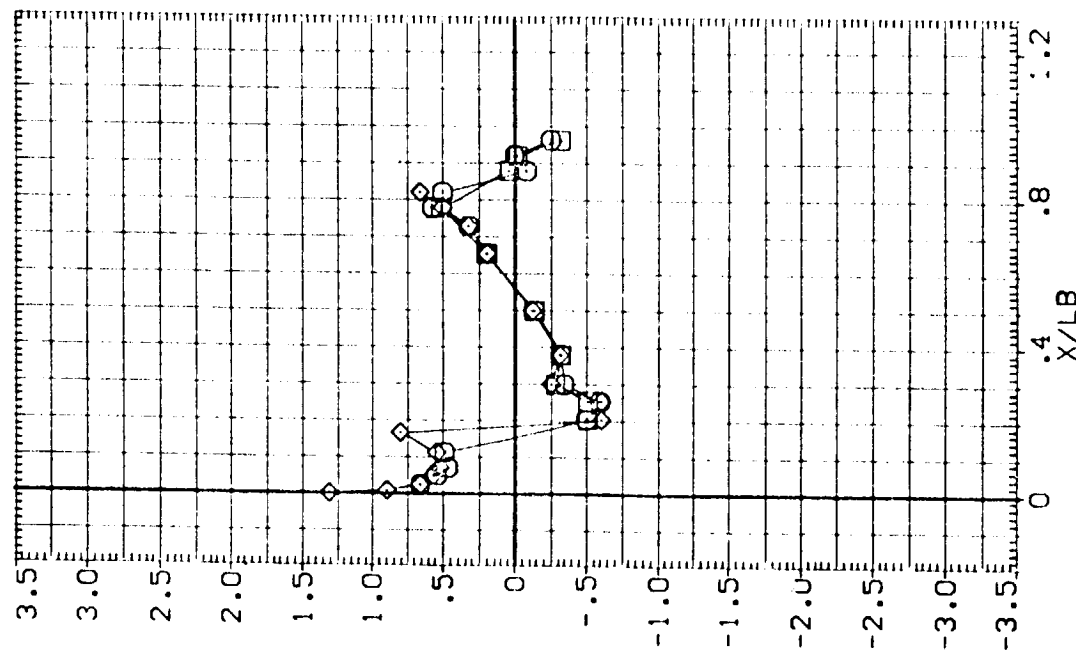
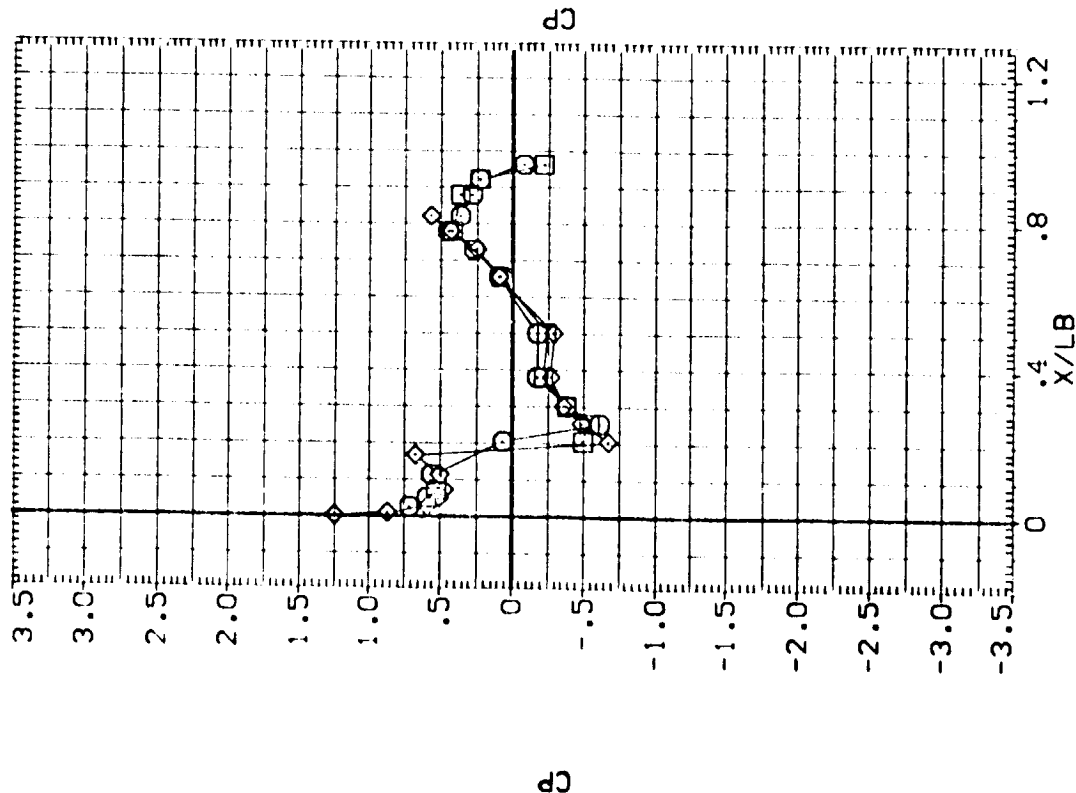
SYMBOL  
 O  
 □  
 ◇

PHI 150.000  
 165.000  
 180.000

BETA0 -8.020  
 .030

ALPHA0 -8.080

PARAMETRIC VALUES  
 MACH 1.050  
 RUDDER .000  
 ELEVON .000  
 SPOSRK .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 ORB. FUSELAGE (RB1938)

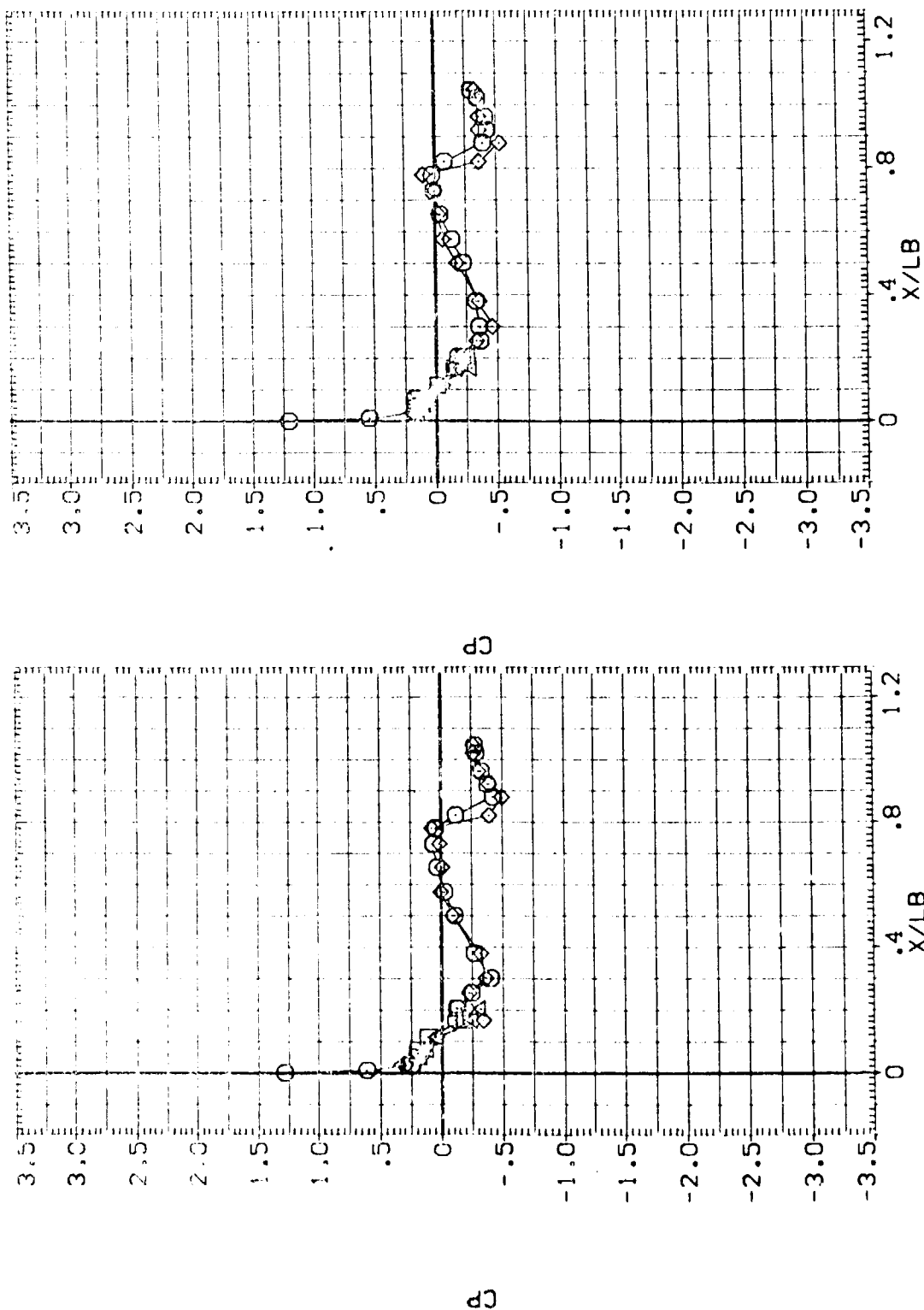
SYMBOL  
○  
◇  
△

PHI  
.000  
20.000  
40.000  
55.000

BETA  
4.120  
8.160

ALPHA  
-8.070

PARAMETRIC VALUES  
MACH 1.030  
ELEVON .000  
RUDDER .000  
SPDRK .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

# ARC11-716 (A14 01+T12+S12N25+AT11 ORB. FUSELAGE (RB1B38)

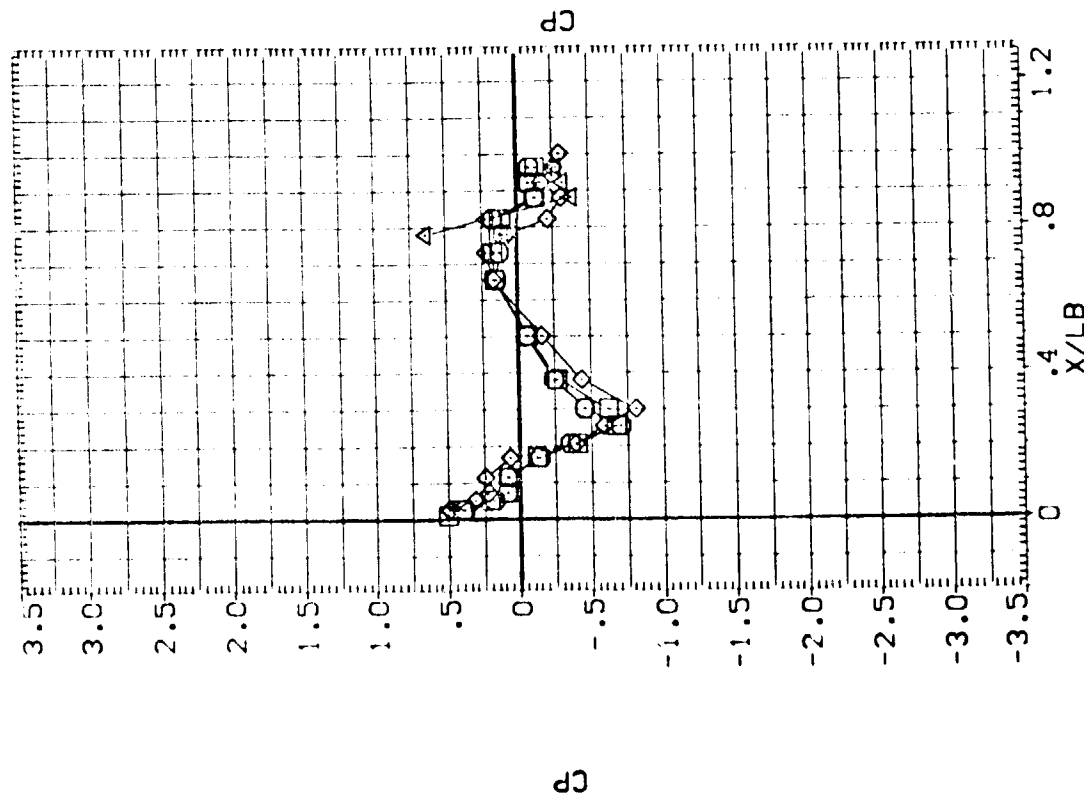
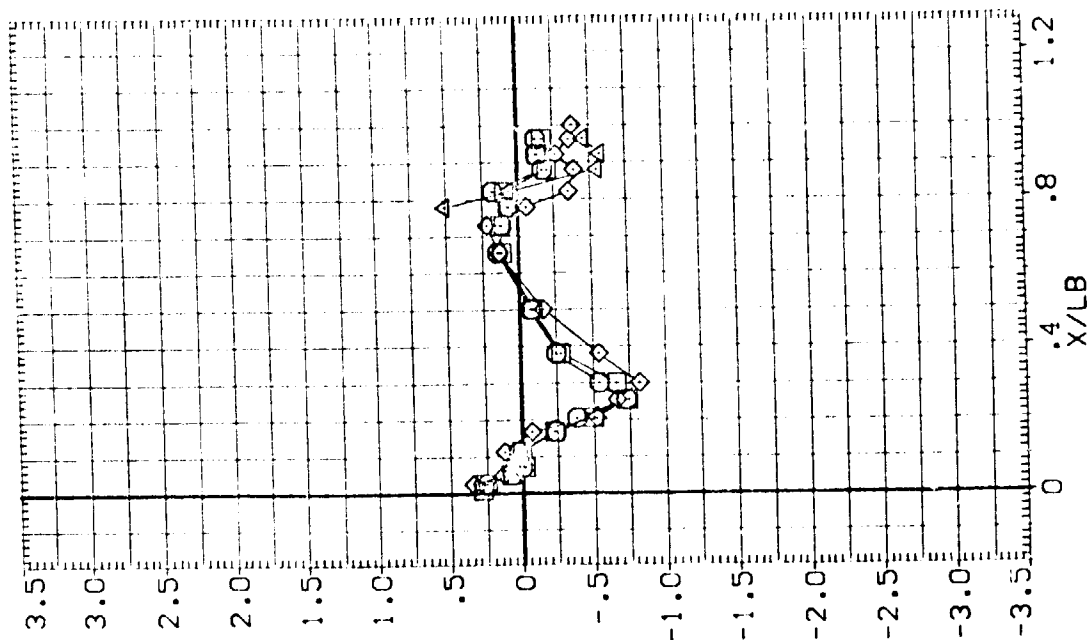
SYMBOL  
 O □ ◇ △

PHI 70.000  
 90.000  
 120.000  
 135.000

BETA0 4.120  
 8.160

ALPHA0 -8.070

PARAMETRIC VALUES  
 MACH 1.050  
 RUDDER .000  
 ELEVON .000  
 SPOBRK .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 ORB. FUSELAGE (RB1B38)

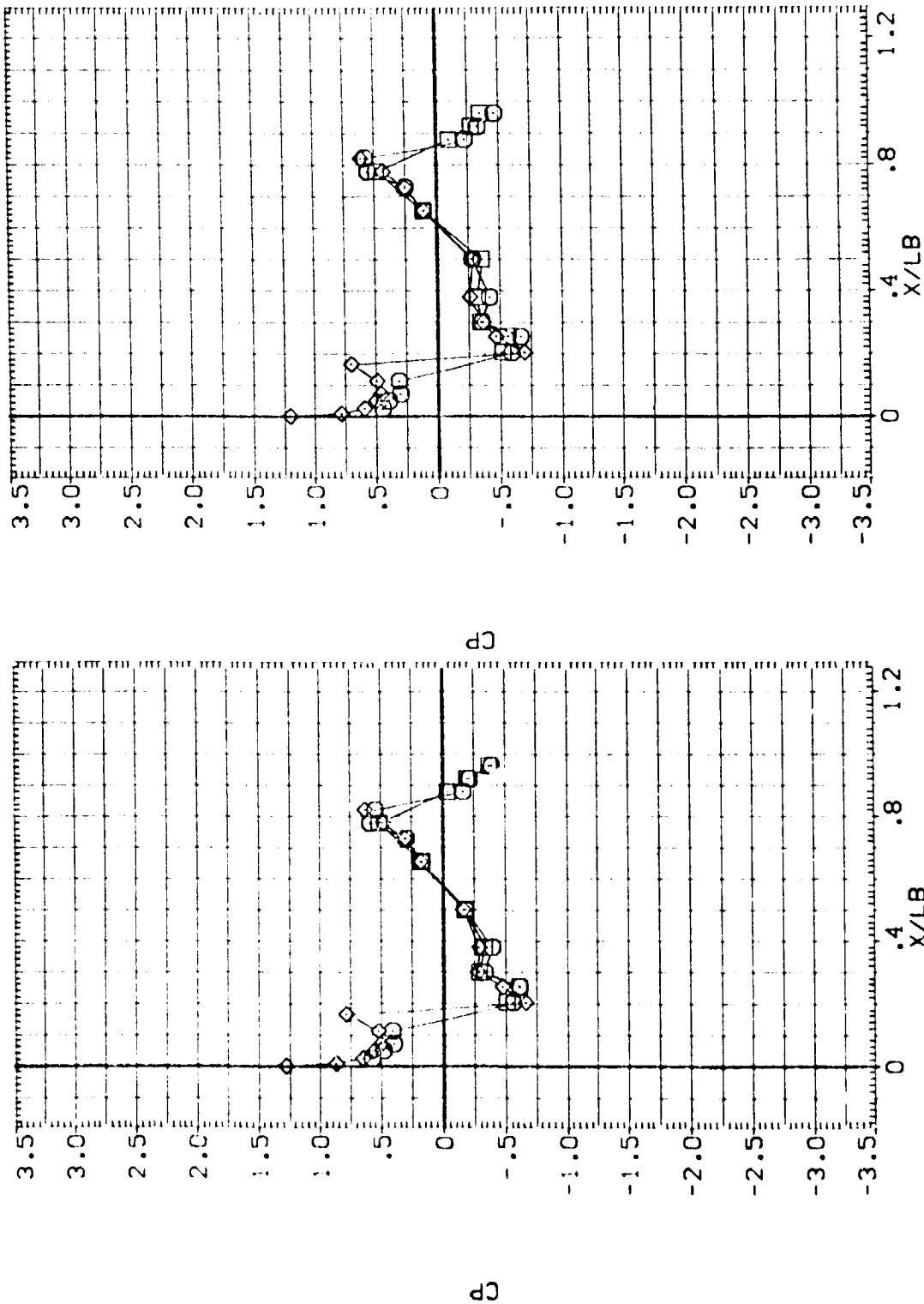
SYMBOL  
 ○ □ ◇

PHI  
 150.000  
 165.000  
 180.000

BETA0  
 4.120  
 8.160

ALPHA0  
 -8.070

PARAMETRIC VALUES  
 MACH 1.050 ELEVON .000  
 RUDDER .000 SPOBRK .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 ORB. FUSELAGE (RB1B38)

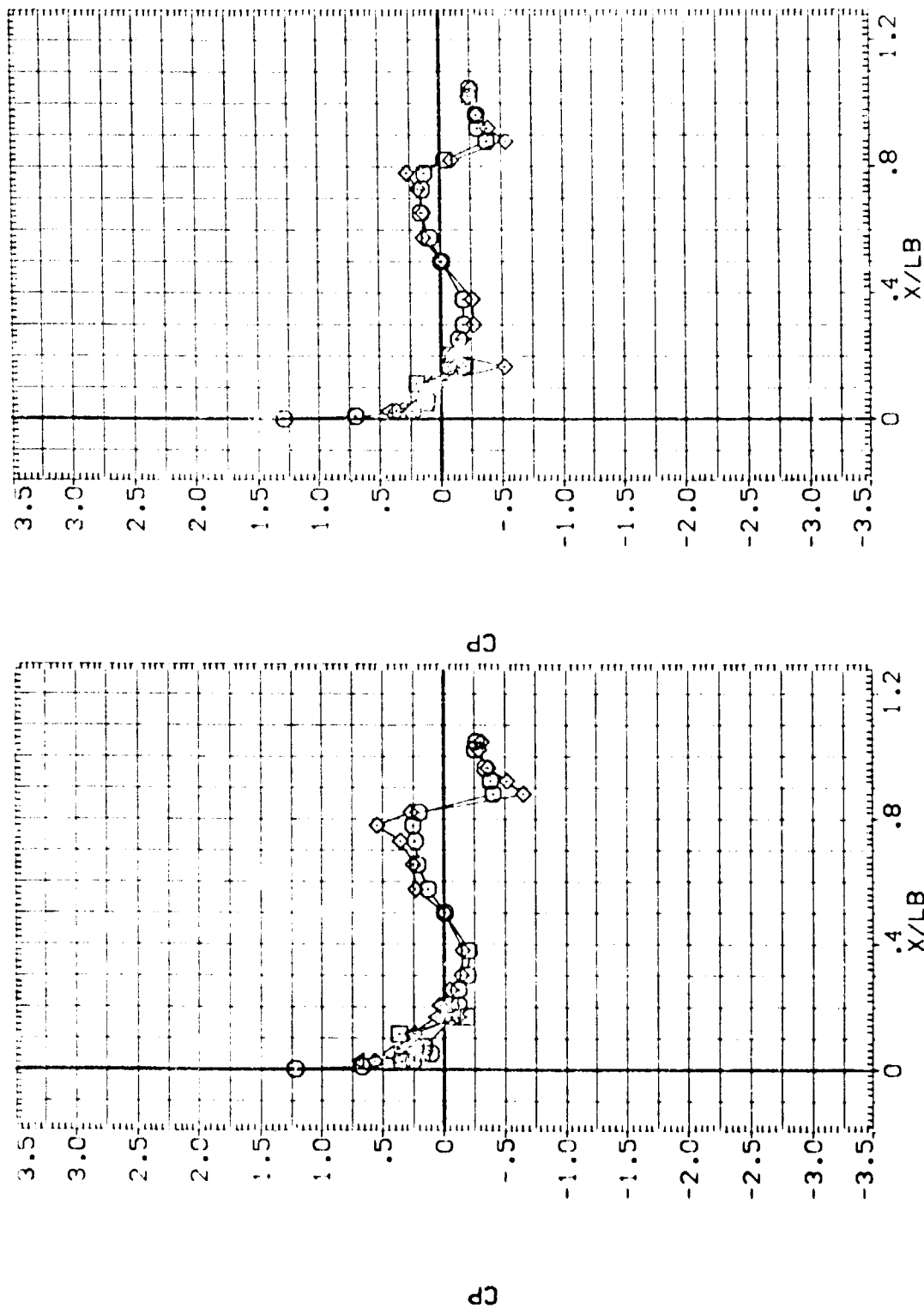
SYMBOL  
 O  
 ◇  
 △

PHI .000  
 20.000  
 40.000  
 55.000

BETA0 -8.040  
 .040

ALPHA0 -3.10

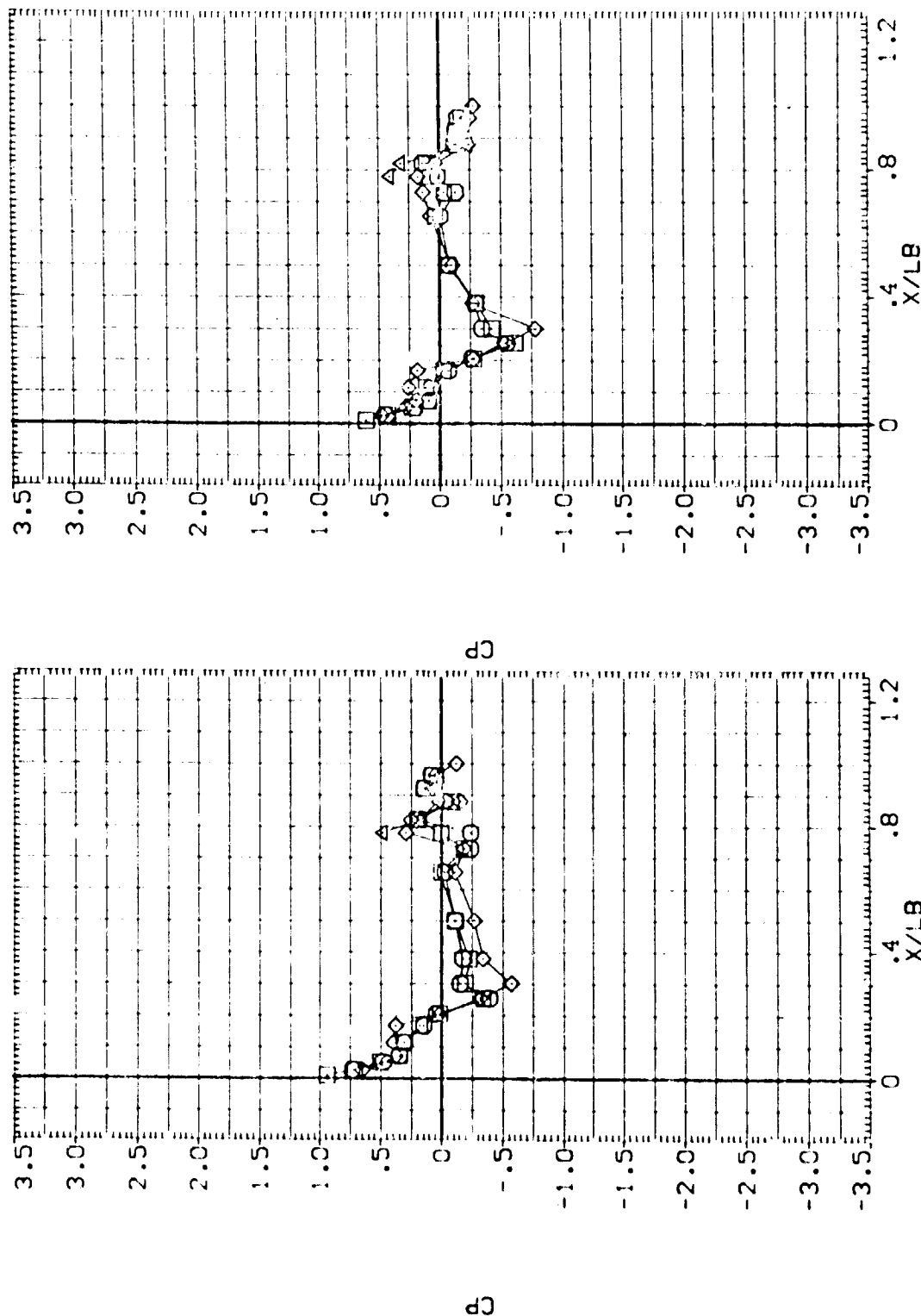
PARAMETRIC VALUES  
 MACH 1.050  
 RUDDER .000  
 ELEVON .000  
 SPOILER .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 ORB. FUSELAGE (RB1B38)

SYMBOL	PHI	BETA0	ALPHA0	PARAMETRIC VALUES	
	70.000	-8.040	-3.10	MACH	ELEVON
	90.000	.040		.000	.000
	120.000			RUDER	SPDRK
	135.000				



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES



ARC11-716 1A14 01+T12+S.2N25+AT11 ORB. FUSELAGE (RB1B38)

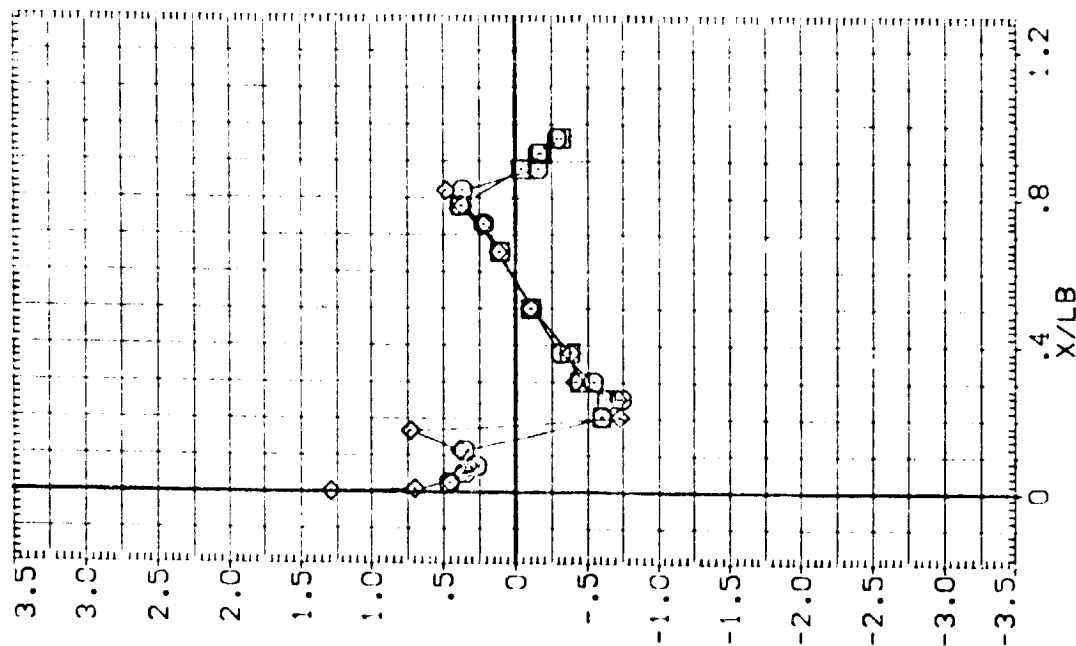
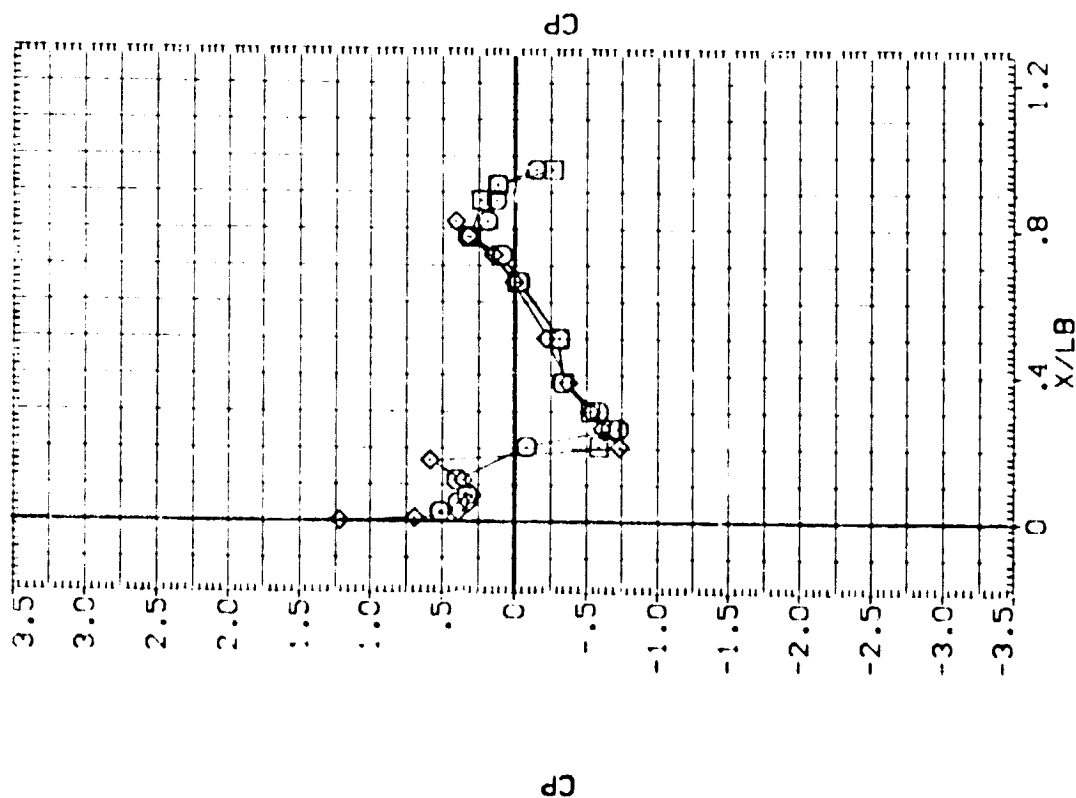
SYMBOL

150.000  
165.000  
180.000

BETA0  
-8.040  
.040

ALPHA0  
-.310

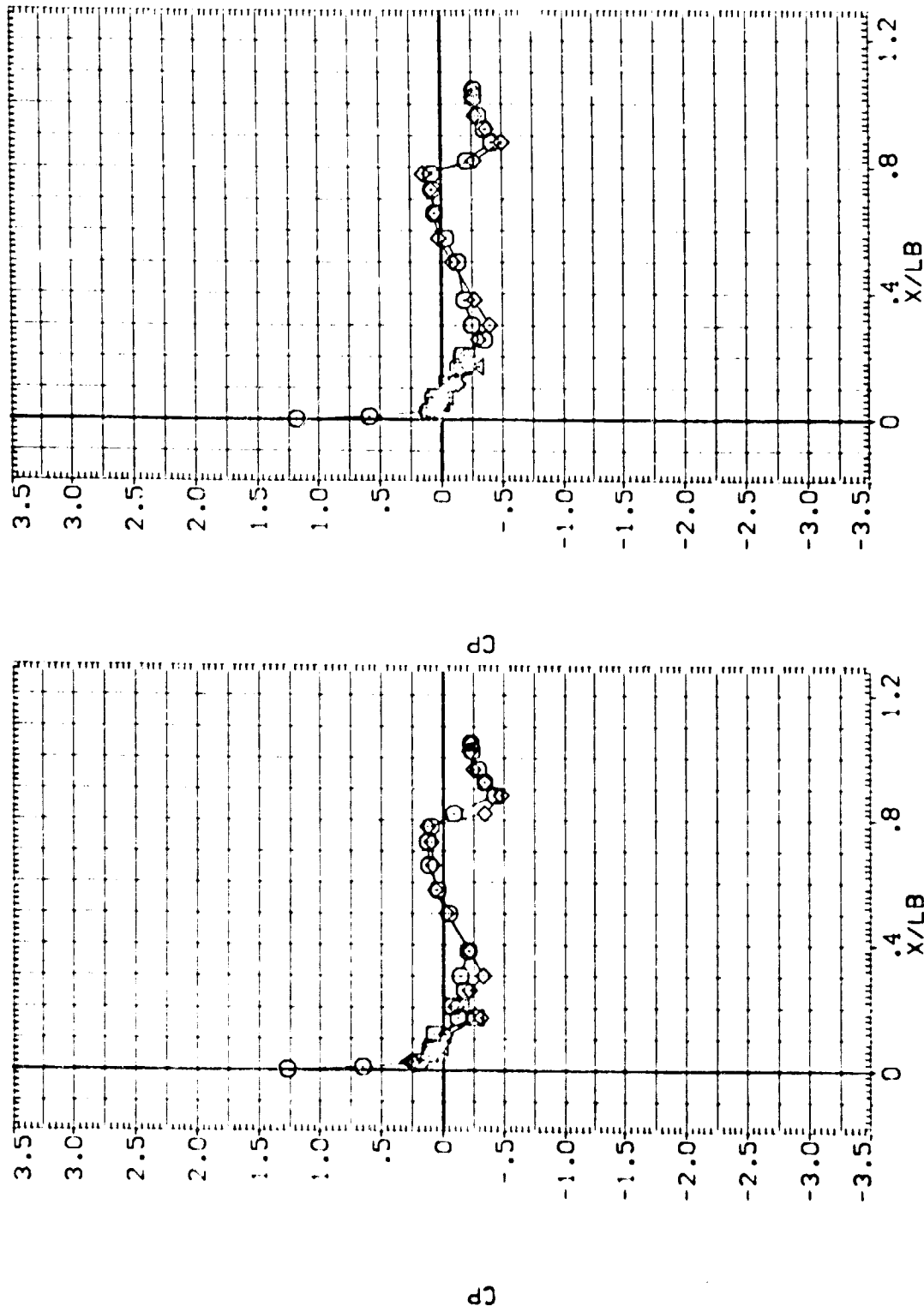
PARAMETRIC VALUES  
MACH 1.050  
ELEVON .000  
RUDDER .000  
SPOILER .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 IA14 01+T12+S12N25+AT11 ORB. FUSELAGE (R81B38)

SYMBOL	PHI	BETA	ALPHA	PARAMETRIC VALUES		
				MACH	ELEVON	SPDRK
○	.000	4.050	-3.320	.000	.000	.000
◇	20.000	8.130		.000	.000	.000
△	40.000					
	55.000					



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 IA14 01+112+S12N25+AT11 ORB. FUSELAGE (RB1B38)

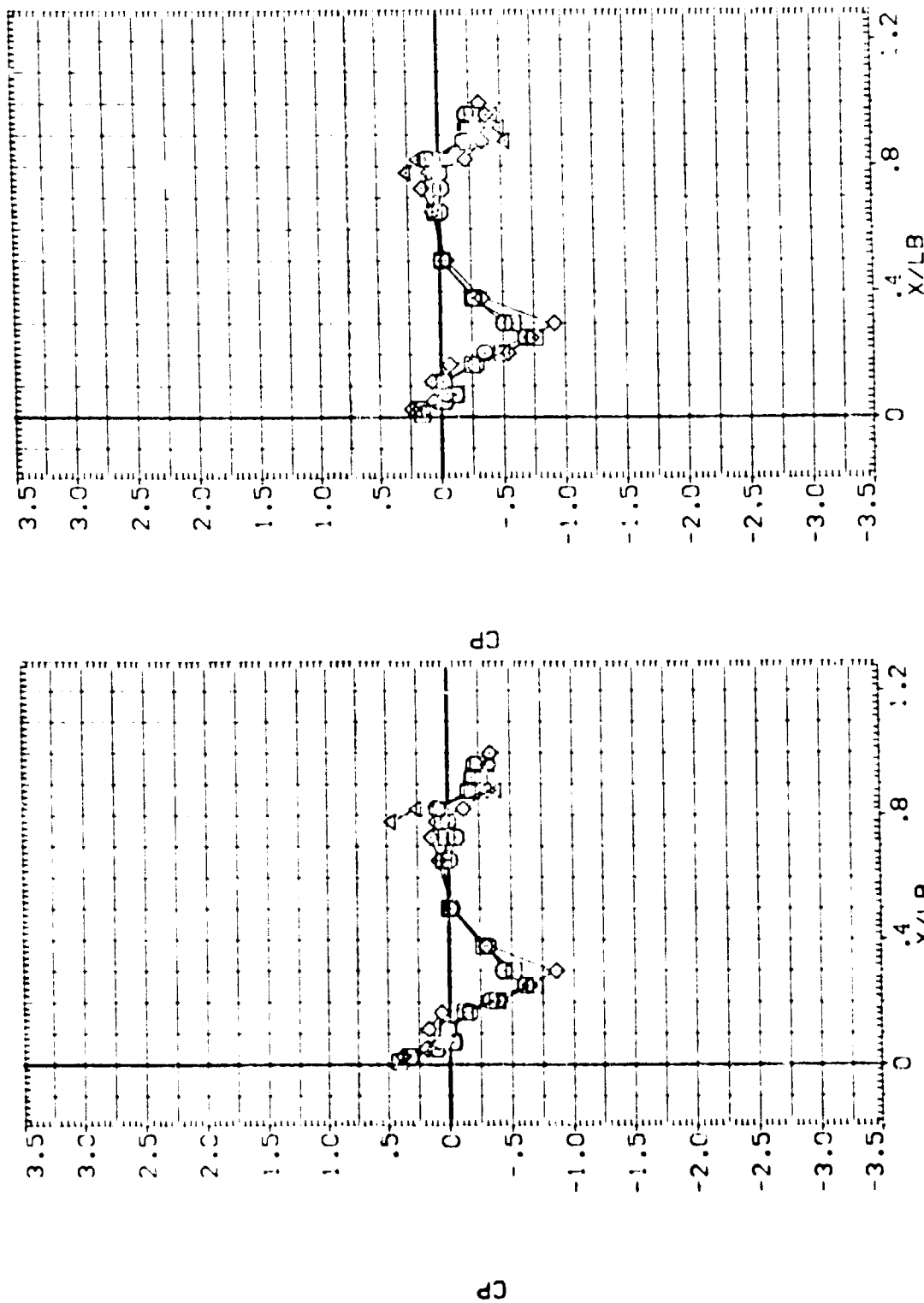
SYMBOL  
○  
◇  
△

PHI  
70.000  
90.000  
120.000  
150.000

BETA  
4.090  
8.180

ALPHA  
-1.320

PARAMETRIC VALUES  
MACH 1.050 ELEVON .000  
RUDDER .000 SPOILER .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 ORB. FUSELAGE (RB1B38)

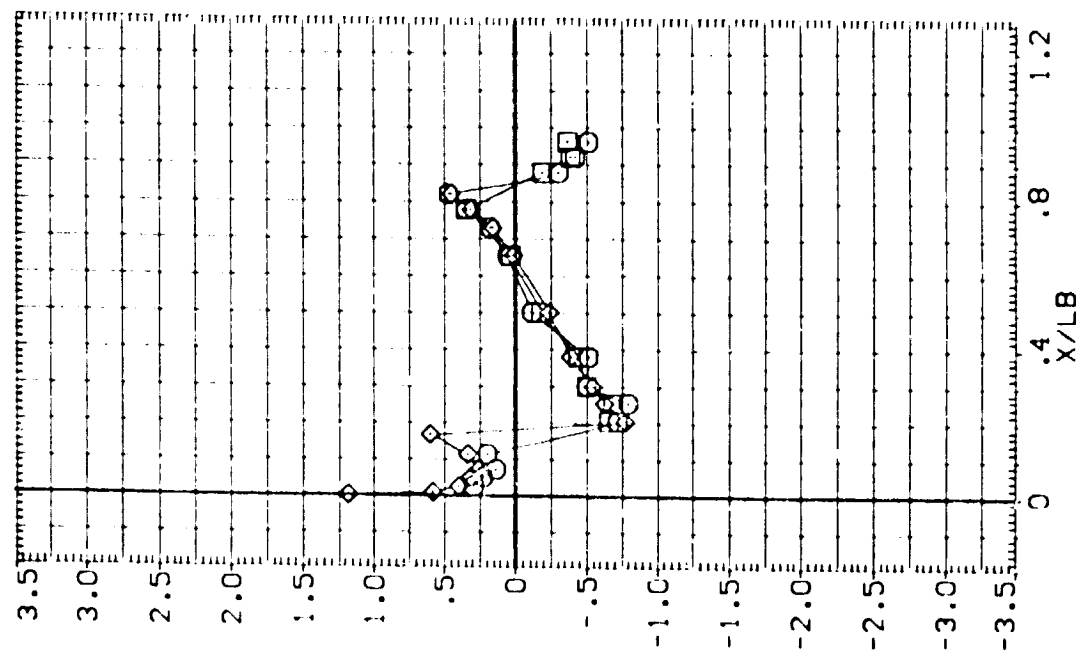
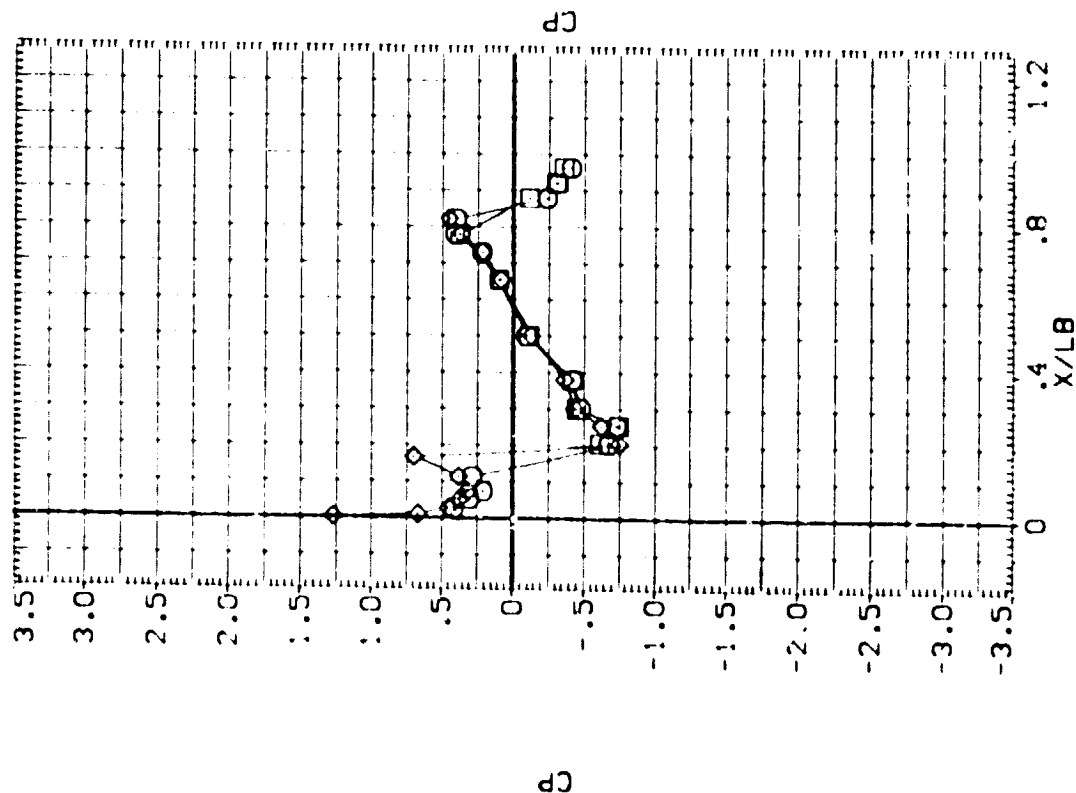
SYMBOL  
○  
◇

PHI  
150.000  
165.000  
180.000

BETA0  
4.090  
8.130

ALPHA0  
-.320

PARAMETRIC VALUES  
MACH 1.050  
ELEVON .000  
RUDDER .000  
SPOILER .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 IA14 C1+T12+S12N25+AT11 ORB. FUSELAGE (RB1B38)

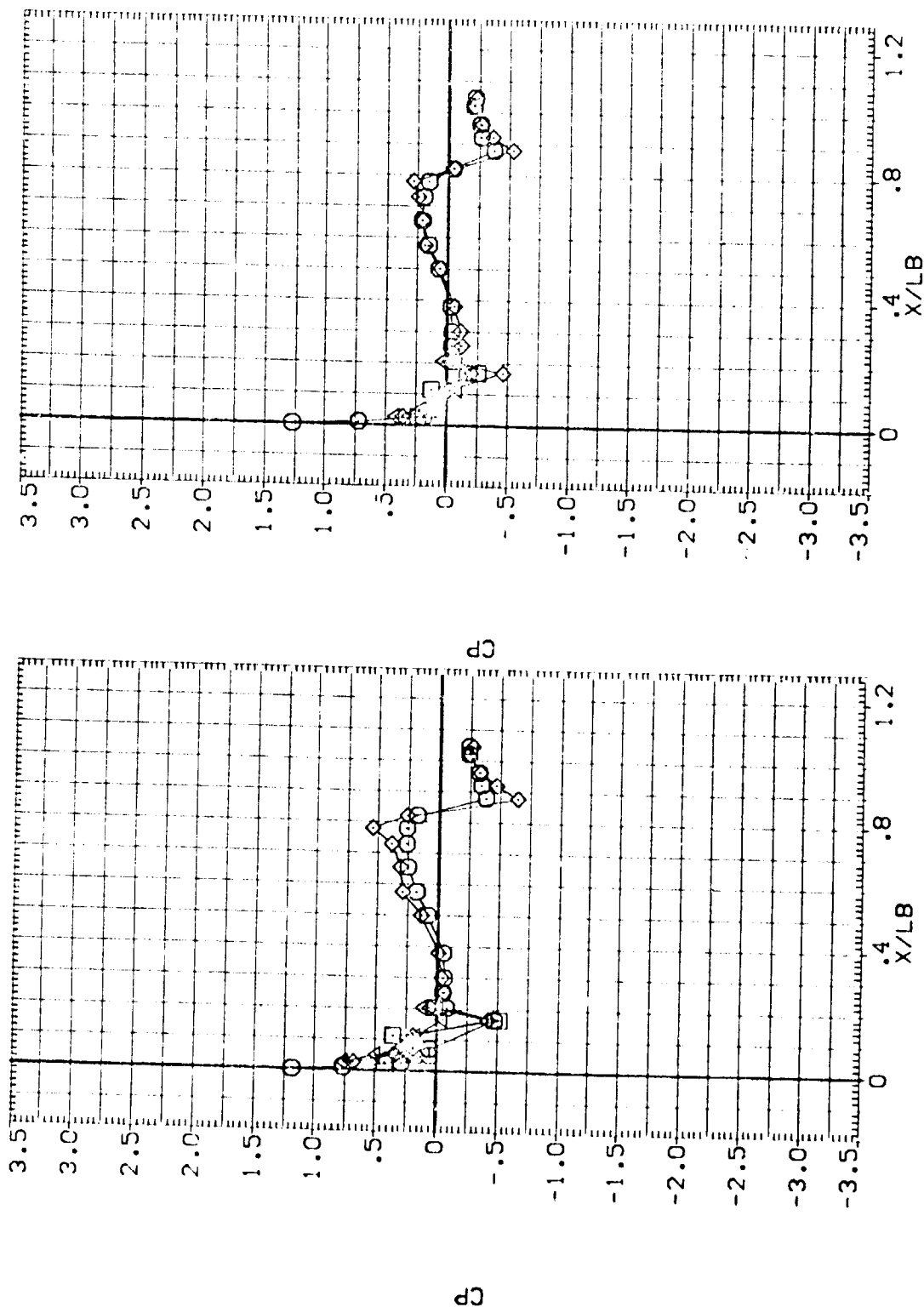
SYMBOL  
 ○ □ ◇ △

PHI .000  
 20.000  
 40.000  
 55.000

BETA0 -8.010  
 .040

ALPHA0 7.930

PARAMETRIC VALUES  
 MACH 1.050  
 RUDDER .000  
 ELEVON .000  
 SPDRK .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

# ARC11-716 1A14 01+T12+S12N25+AT11 ORB. FUSELAGE (RB1B38)

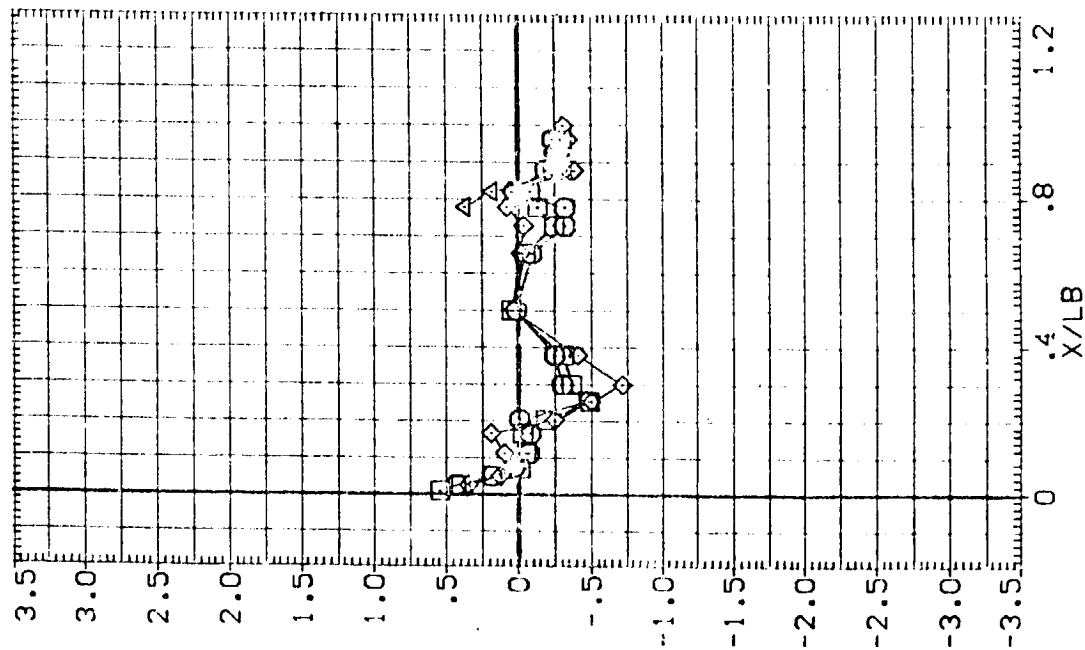
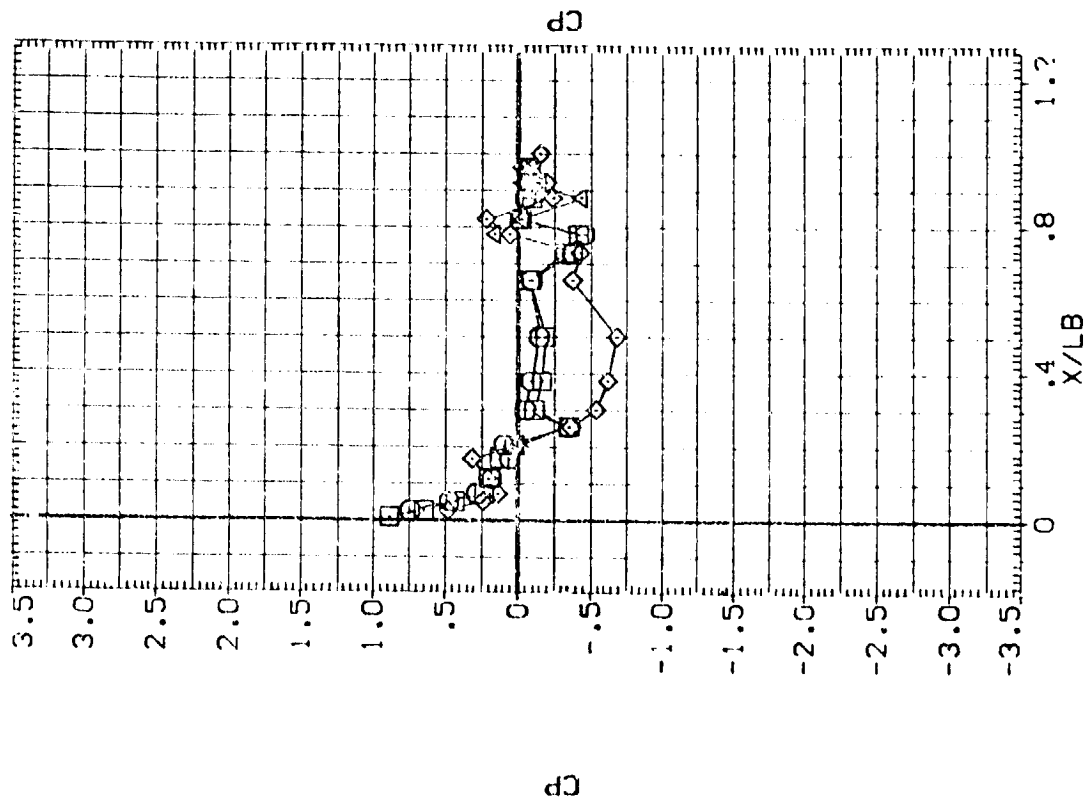
SYMBOL

PHI 70.000  
90.000  
120.000  
135.000

BETA0 -8.016  
.040

ALPHA0 7.930

PARAMETRIC VALUES  
MACH 1.050  
ELEVON .000  
RUDDER .000  
SPDRK .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

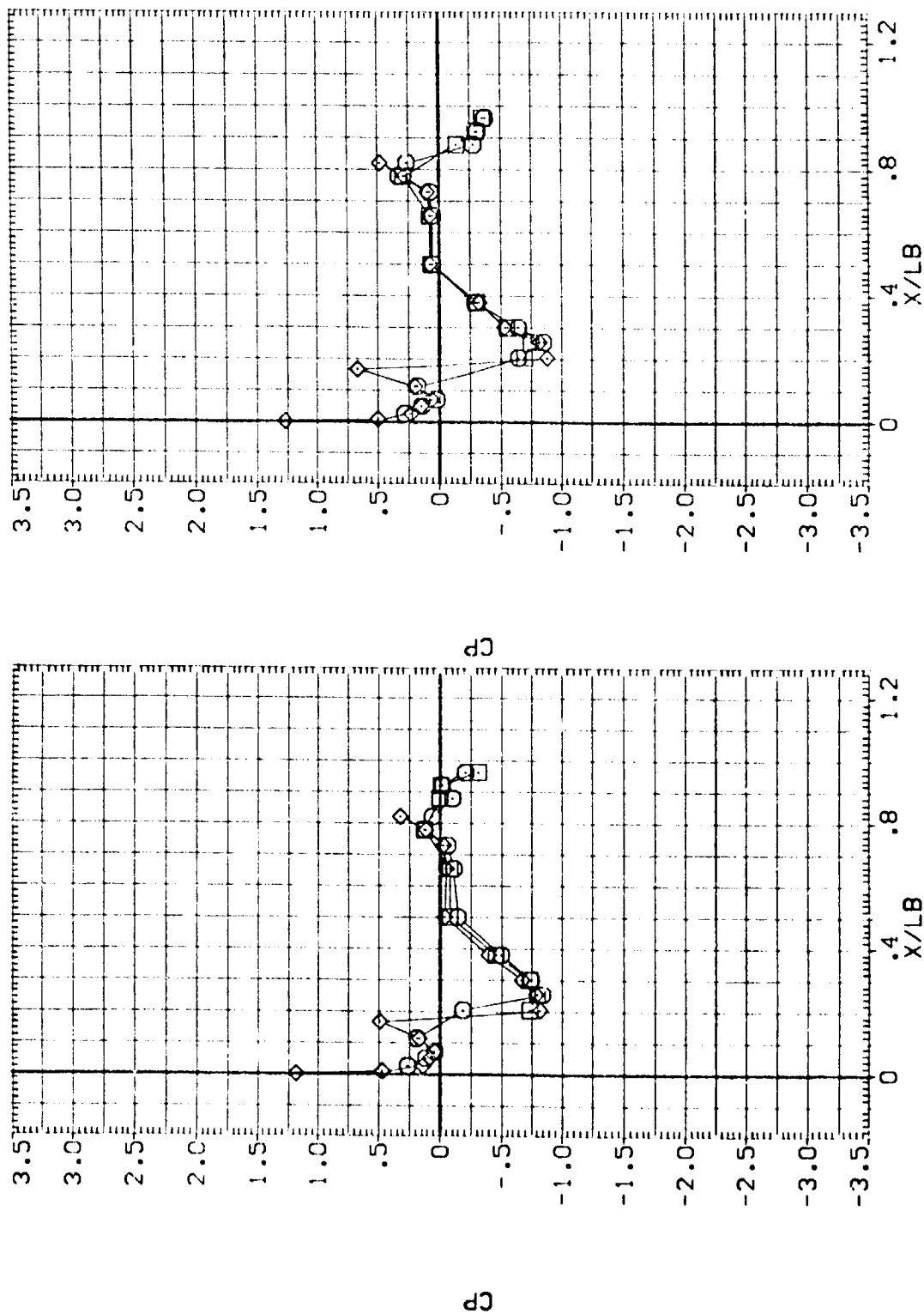
SYMBOL  
 ○  
 □  
 ◇

PHI  
 150.000  
 165.000  
 180.000

BETA0  
 -8.010  
 .040

ALPHA0  
 7.930

PARAMETRIC VALUES  
 MACH 1.050  
 RUDDER .000  
 ELEVON .000  
 SPOILER .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 ORB. FUSELAGE (RB1B38)

SYMBOL  
○ □ ◇ △

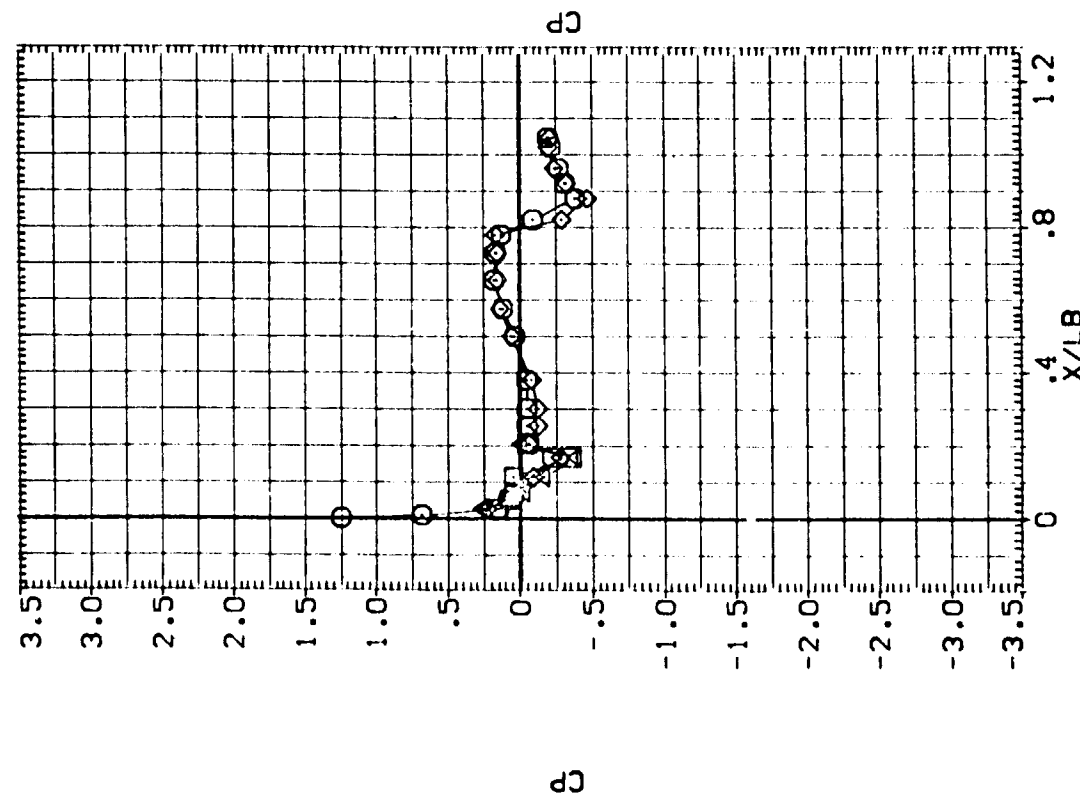
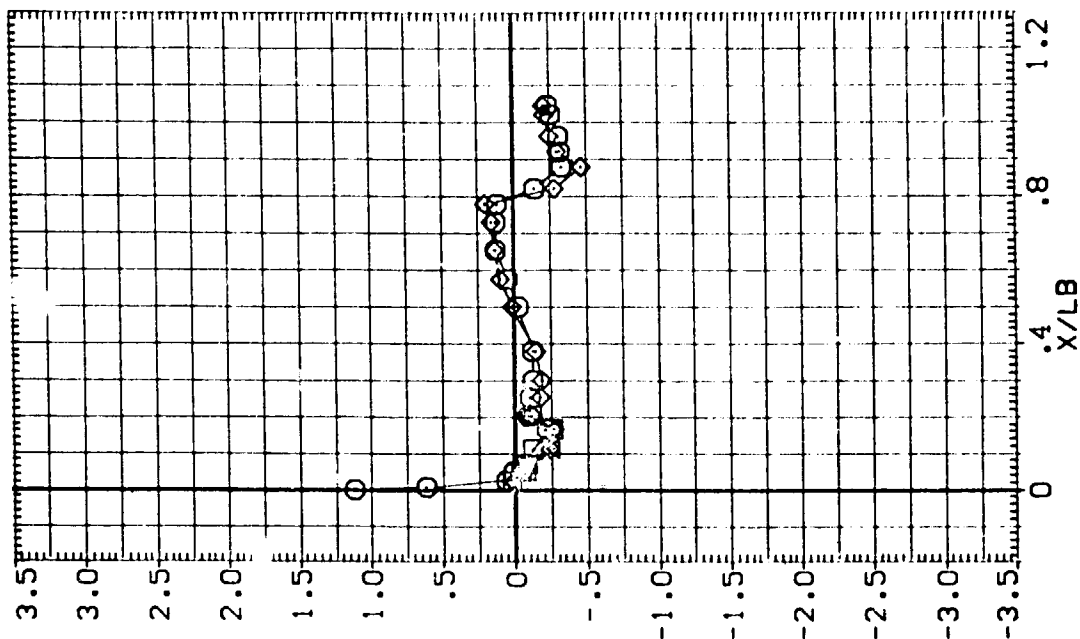
PHI .000  
20.000  
40.000  
55.000

BETA 0 4.110  
8.200

ALPHA 0 7.930

MACH  
RUDDER

PARAMETRIC VALUES  
1.050 ELEVON  
.000 SPOBRK  
.000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES



ARC11-716 1A14 01+T12+S12N25+AT11 ORB. FUSELAGE (R91B38)

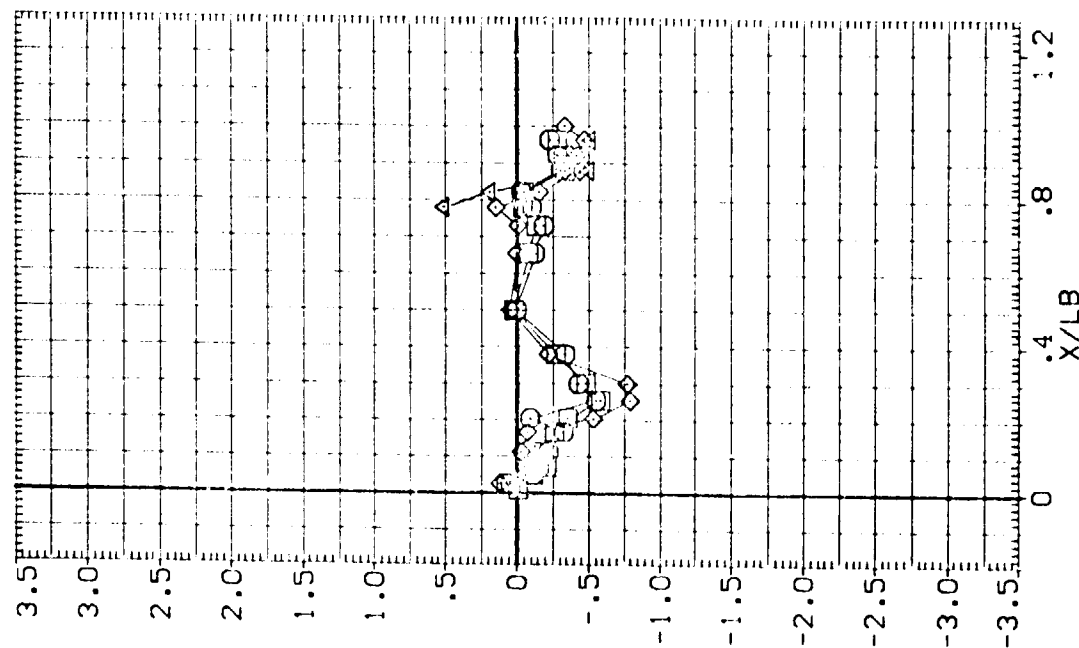
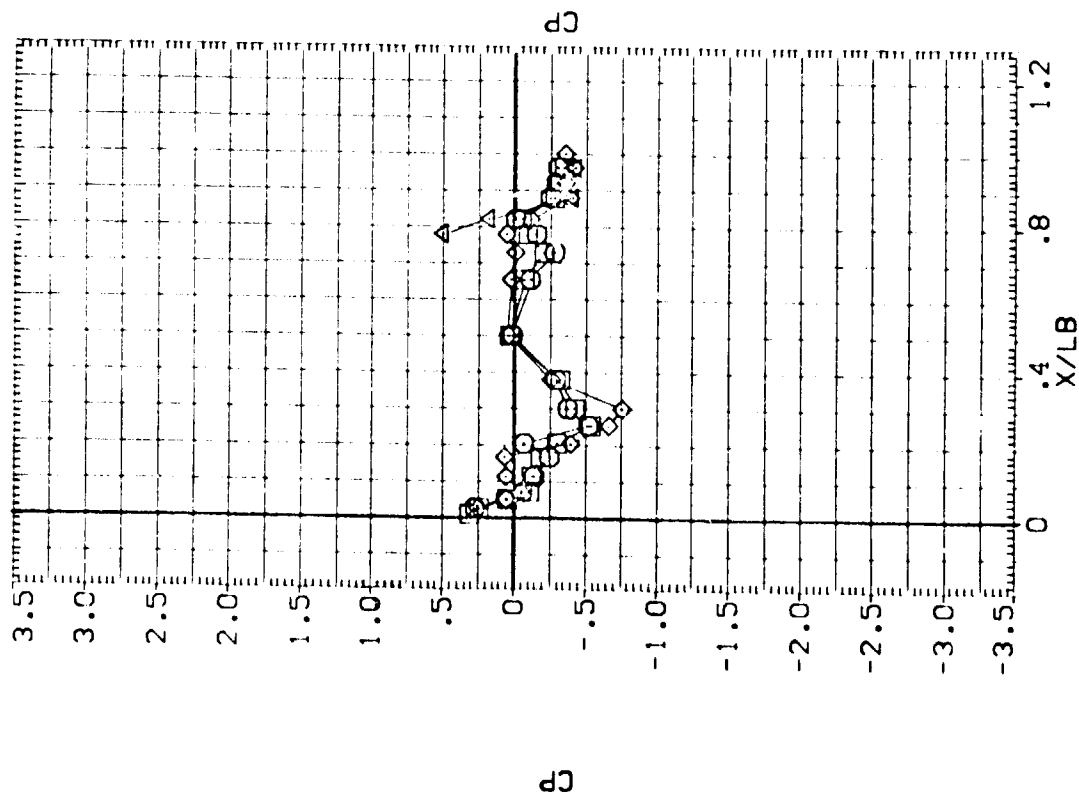
SYMBOL

70.000  
90.000  
120.000  
135.000

BETA0 4.110  
8.200

ALPHA0 7.930

MACH .000  
RUDDER .000  
ELEVON .000  
SPDBRK .000



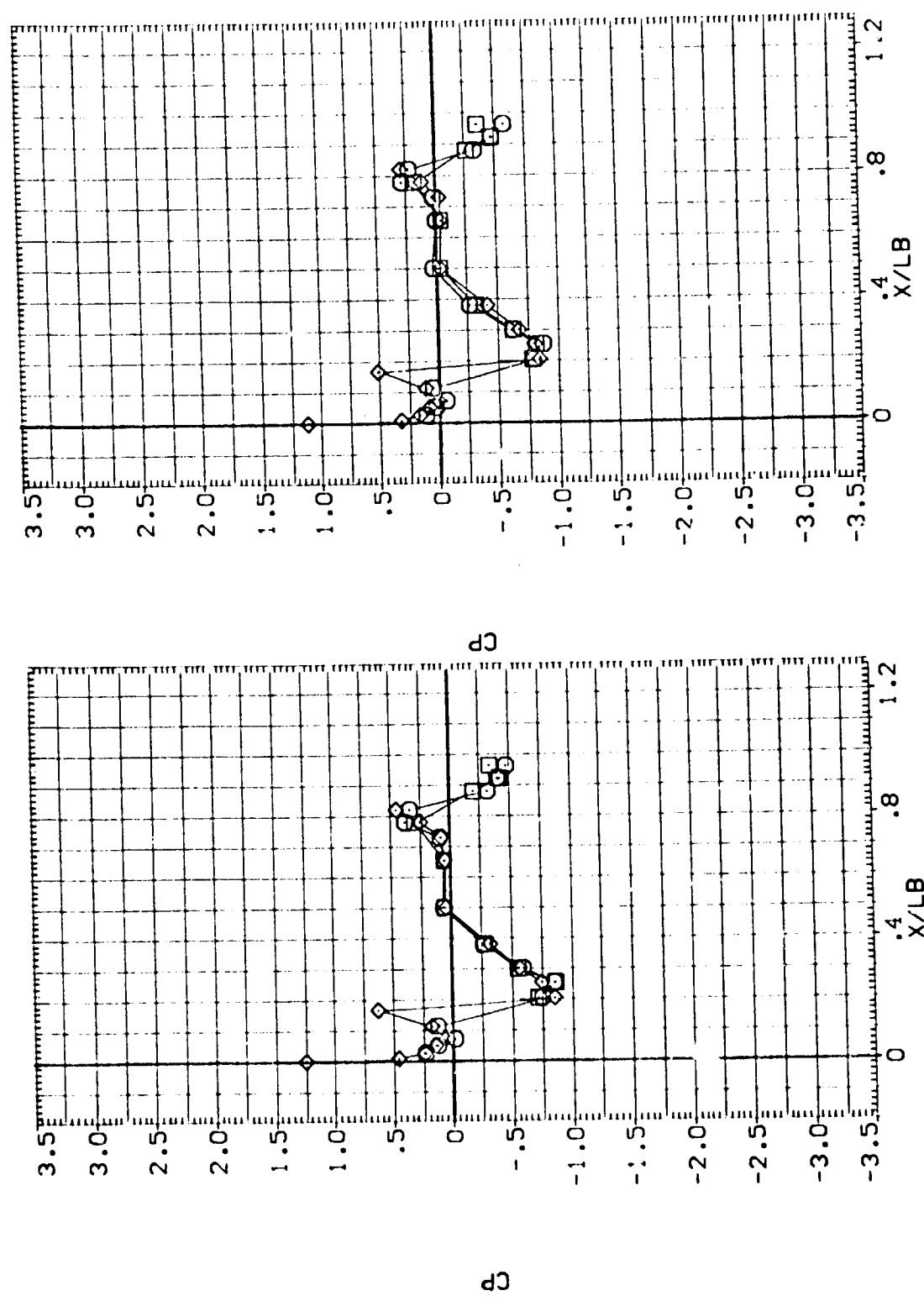
LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 ORB. FUSELAGE (RB1B38)

PARAMETRIC VALUES  
 MACH 1.050 ELEVON .000  
 RUDDER .000 SPOBRK .000

SYMBOL  
 ○ □ ◇

PHI 150.000  
 165.000  
 180.000  
 BETAO 4.110  
 8.200  
 ALPHA0 7.930

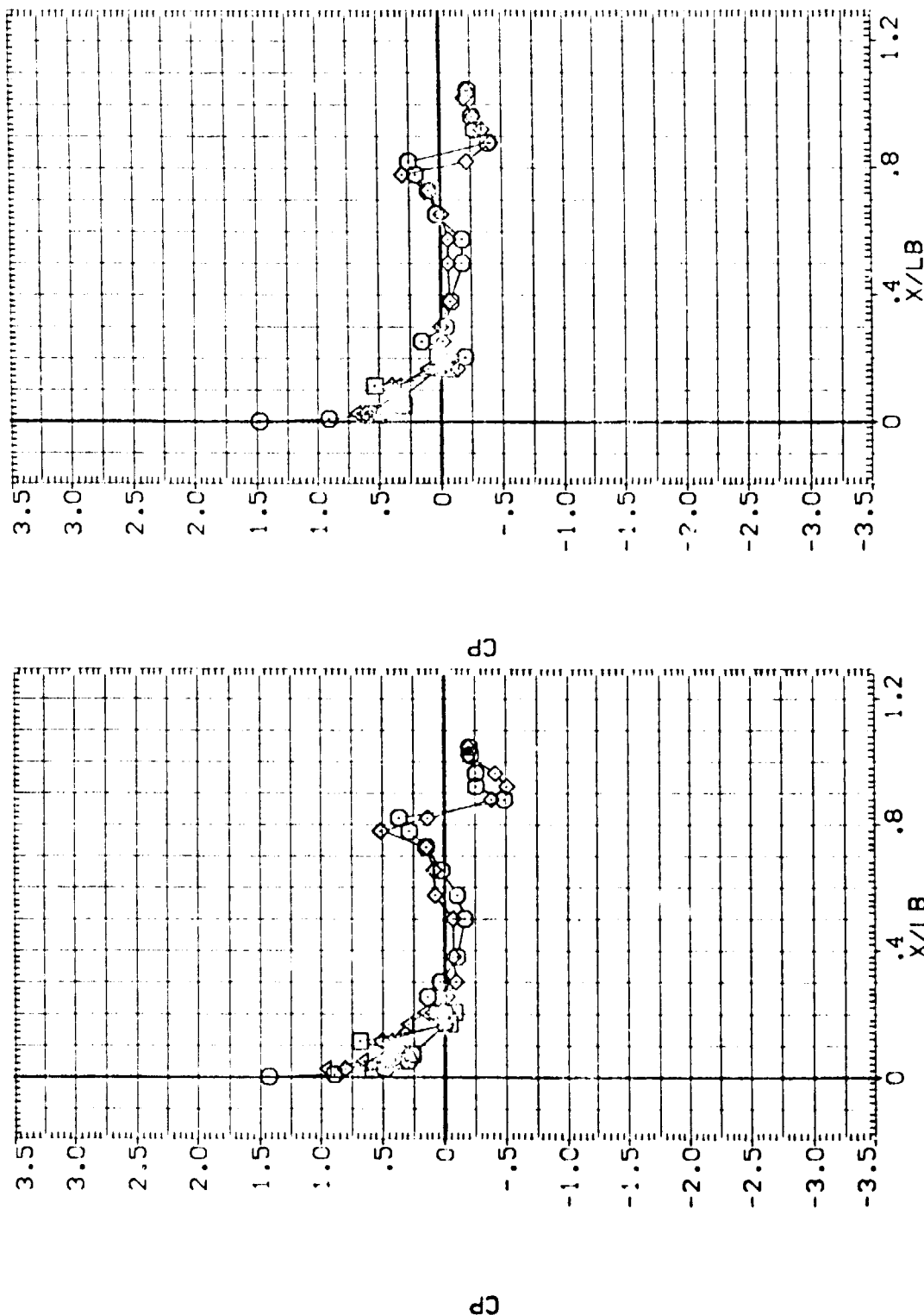


LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC1:-716 1A14 01+T12+S12N25+AT11 ORB. FUSELAGE (RB1B40)

PARAMETRIC VALUES  
MACH 1.400 ELEVON .000  
RUDDER .000 SPOILER .000

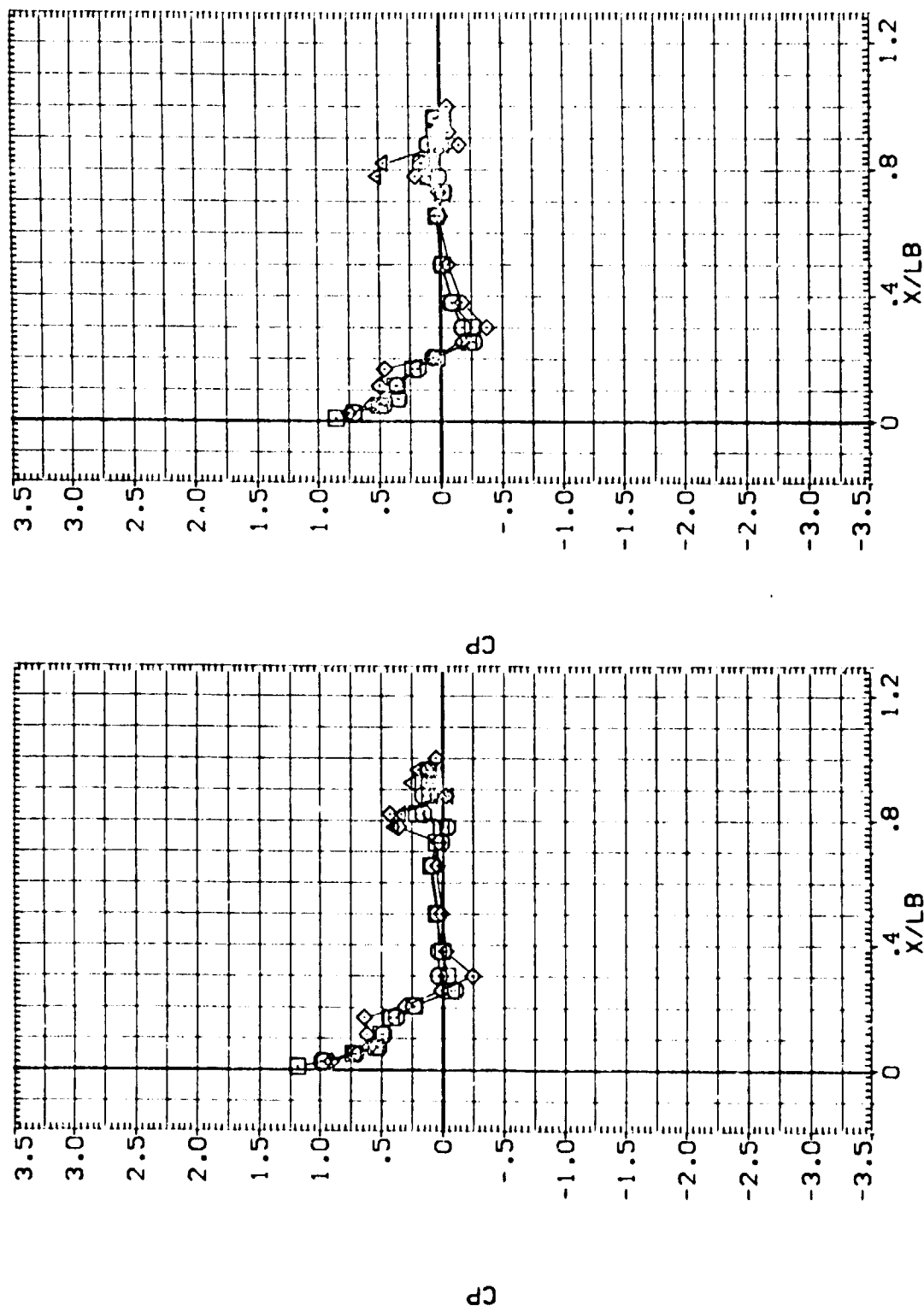
SYMBOL P-1 BETAO ALPHA0  
0 0.000 -8.040 -7.920  
1 20.000 .030  
2 40.000  
3 55.000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC:11-716 1A14 01+T12+S12N25+AT11 ORB. FUSELAGE (RB1B40)

SYMBOL	PHI	BETA	ALPHA	MACH	PARAMETRIC VALUES
○	70.000	-8.040	-7.920	RUDDER	1.400
◇	90.000	.030			ELEVON
△	120.000				SPDRK
	135.000				.000
					.000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 ORB. FUSELAGE (RB1B40)

SYMBOL

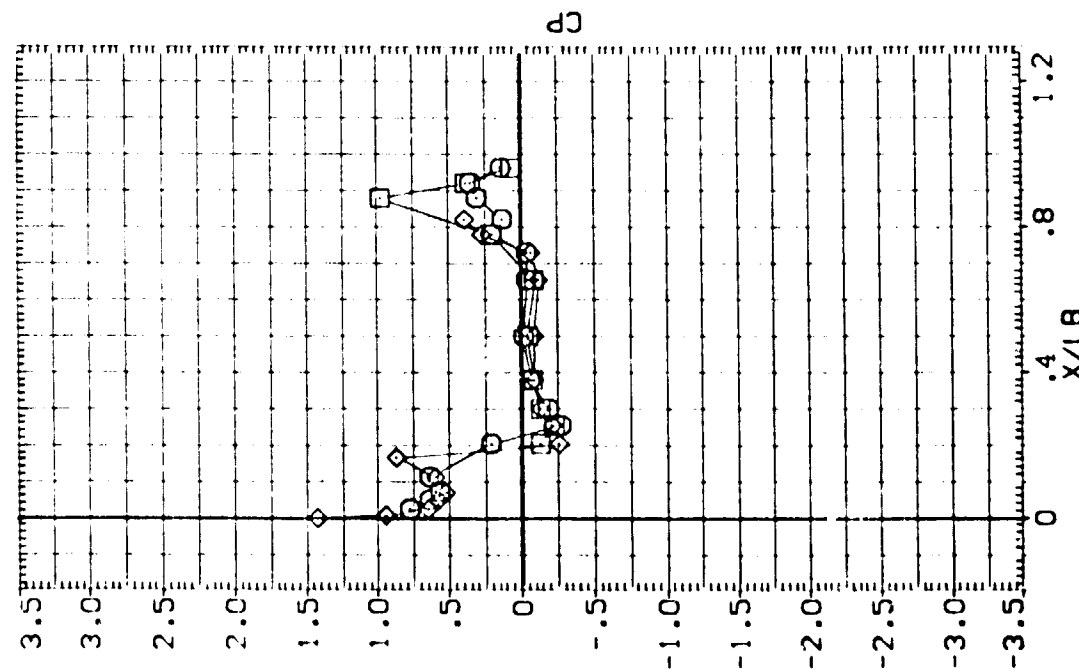
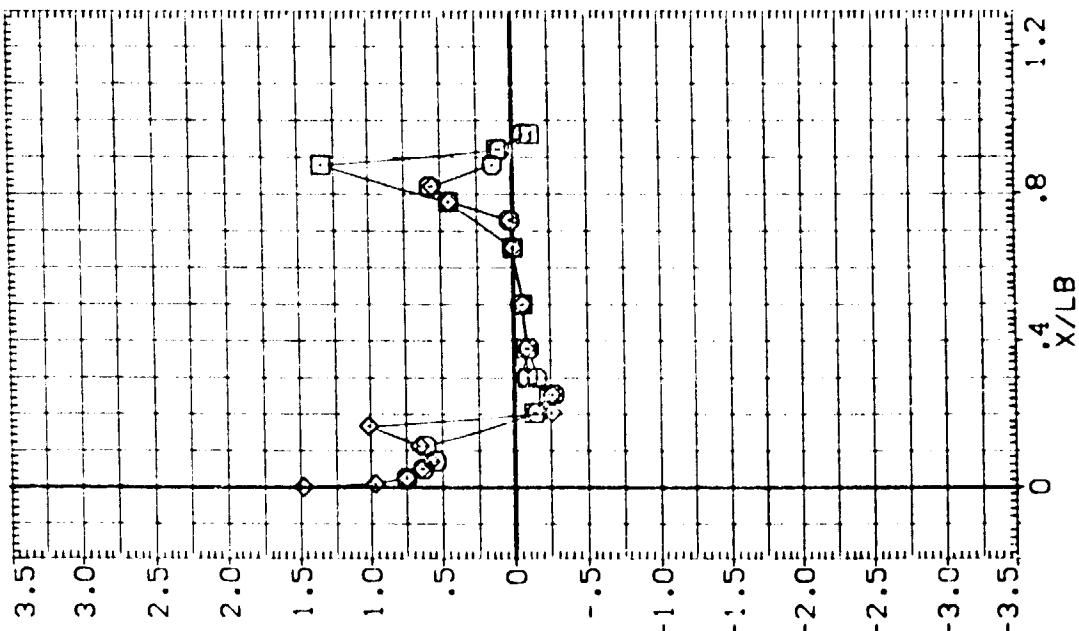
○ ○ ◇

PHI 150.000  
165.000  
180.000

BETA0 -8.040  
.030

ALPHA0 -7.920

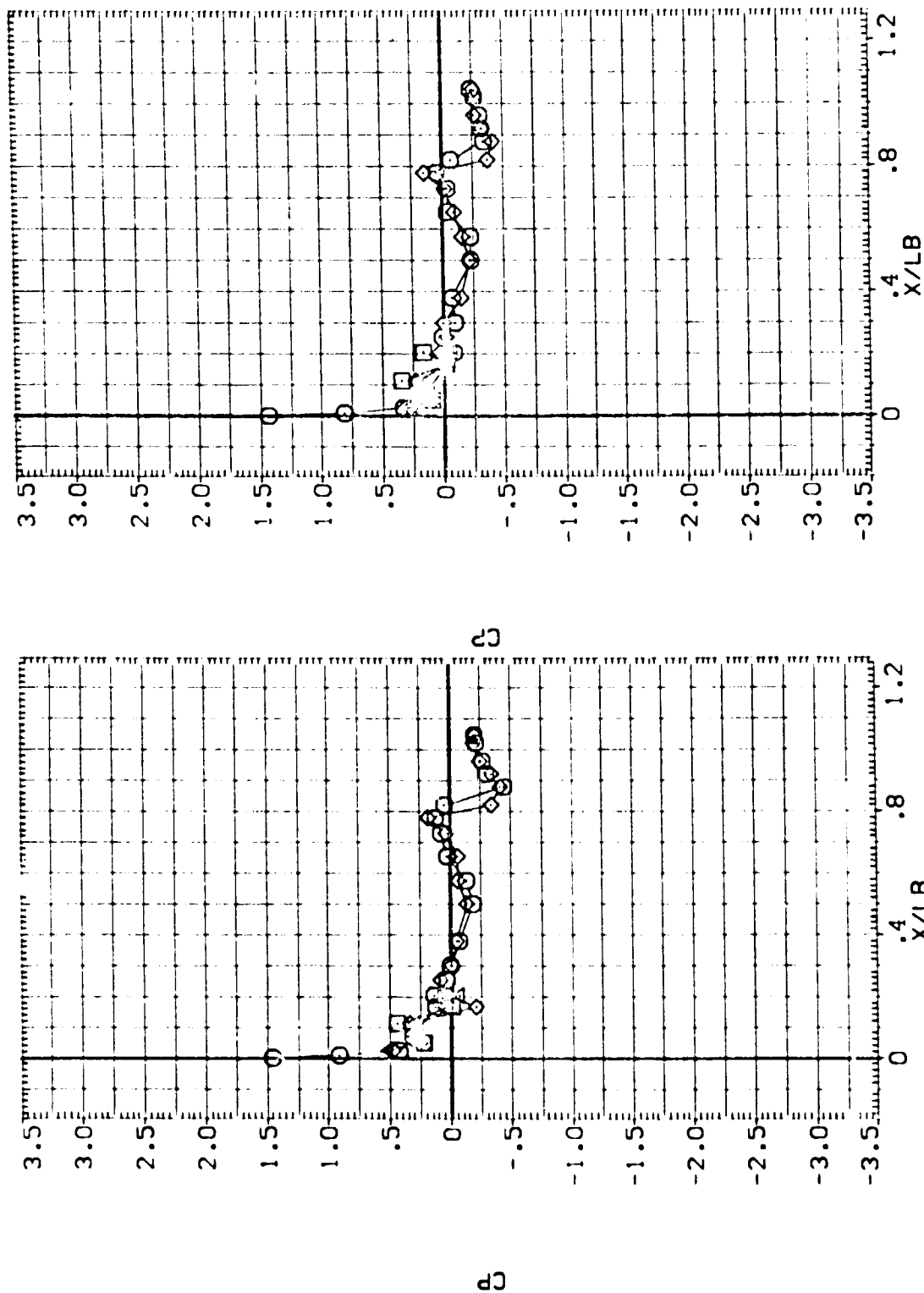
PARAMETRIC VALUES  
MACH 1.400  
ELEVON .000  
RUDDER .000  
SPDRK .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC:1-716 1A14 01+112+S12N25+AT11 ORB. FUSELAGE (RB1840)

SYMBOL	PHI	BETAS	ALPHA	PARAMETRIC VALUES		
				MACH	ELEVON	SPOBRK
○	.000	4.100	-7.910	.000	.000	.000
□	20.000	8.190		.000	.000	.000
◇	40.000					
△	55.000					

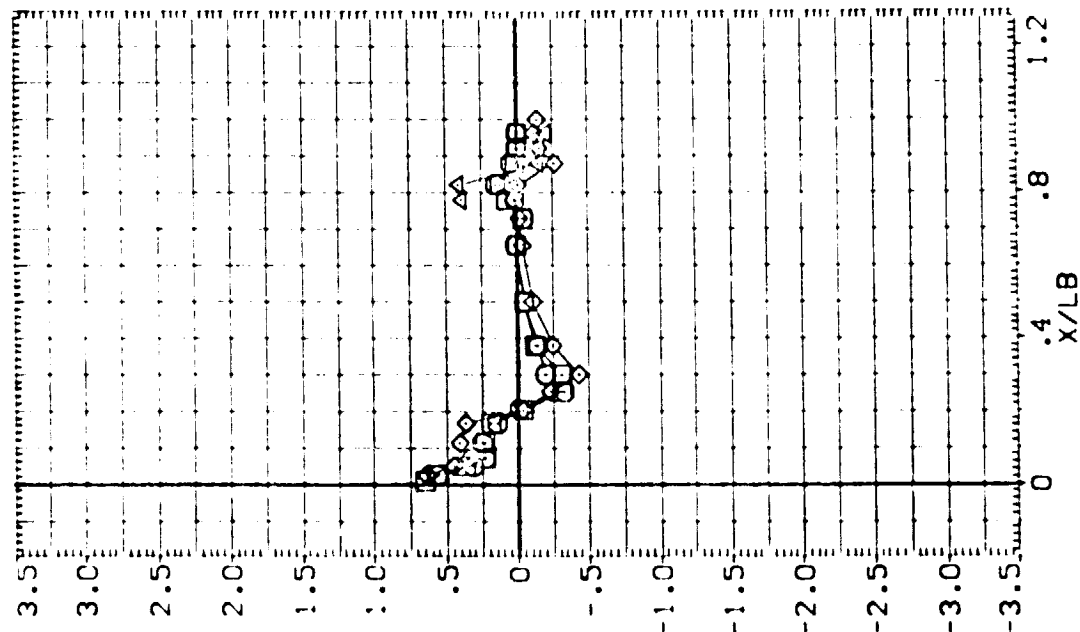
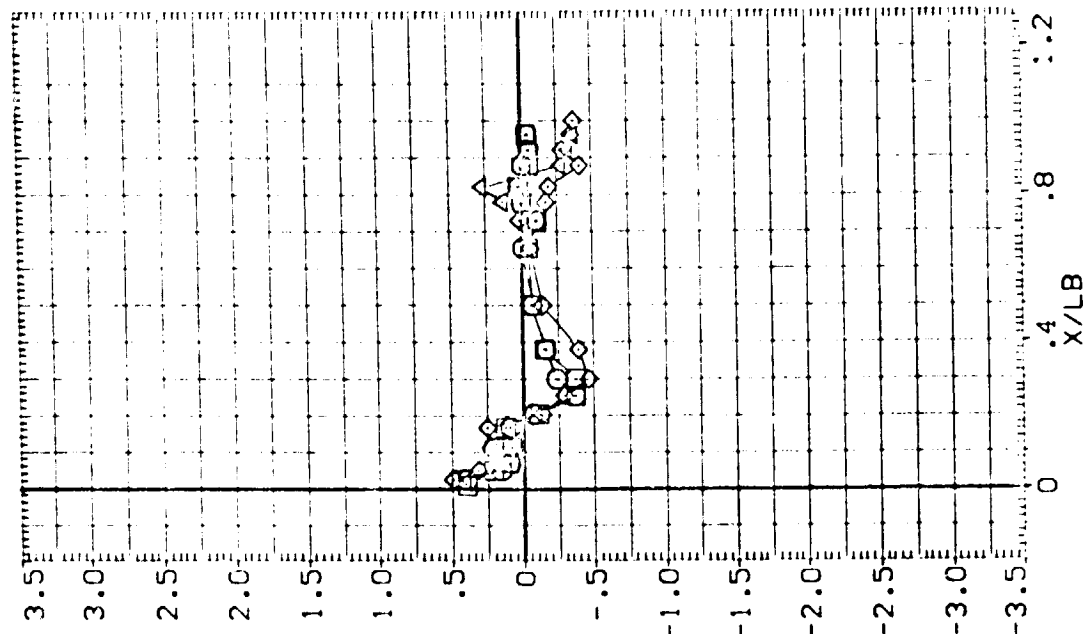


LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 ORB. FUSELAGE (RB1B40)

PARAMETRIC VALUES  
 MAG 1.400 ELEVON .000  
 RUDDER .000 SPOBRK .000

SYMBOL PHI BETAN ALPHA0  
 0 70.000 4.100 -7.910  
 1 90.000 8.190  
 2 120.000  
 3 135.000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 ORB. FUSELAGE (RB1B40)

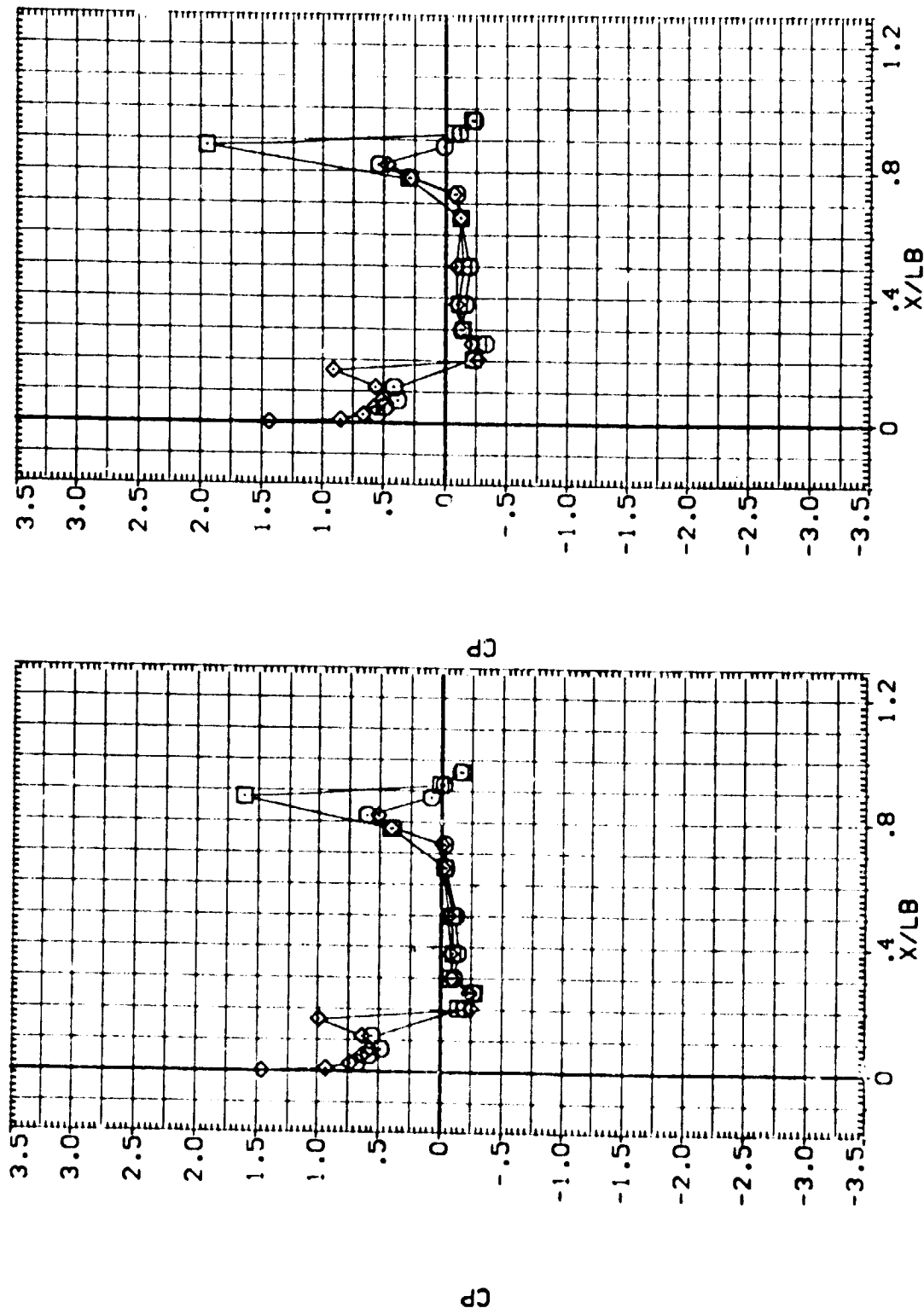
SYMBOL  
 ○ □ ◇

PHI 150.000  
 165.000  
 180.000

BETA0 4.100  
 9.190

ALPHA0 -7.910

PARAMETRIC VALUES  
 MACH 1.400  
 RUDDER .000  
 ELEVON .000  
 SPOBRK .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES



ARC11-716 1A14 01+T12+S12N25+AT11 ORB. FUSELAGE (RB1B40)

SYMBOL

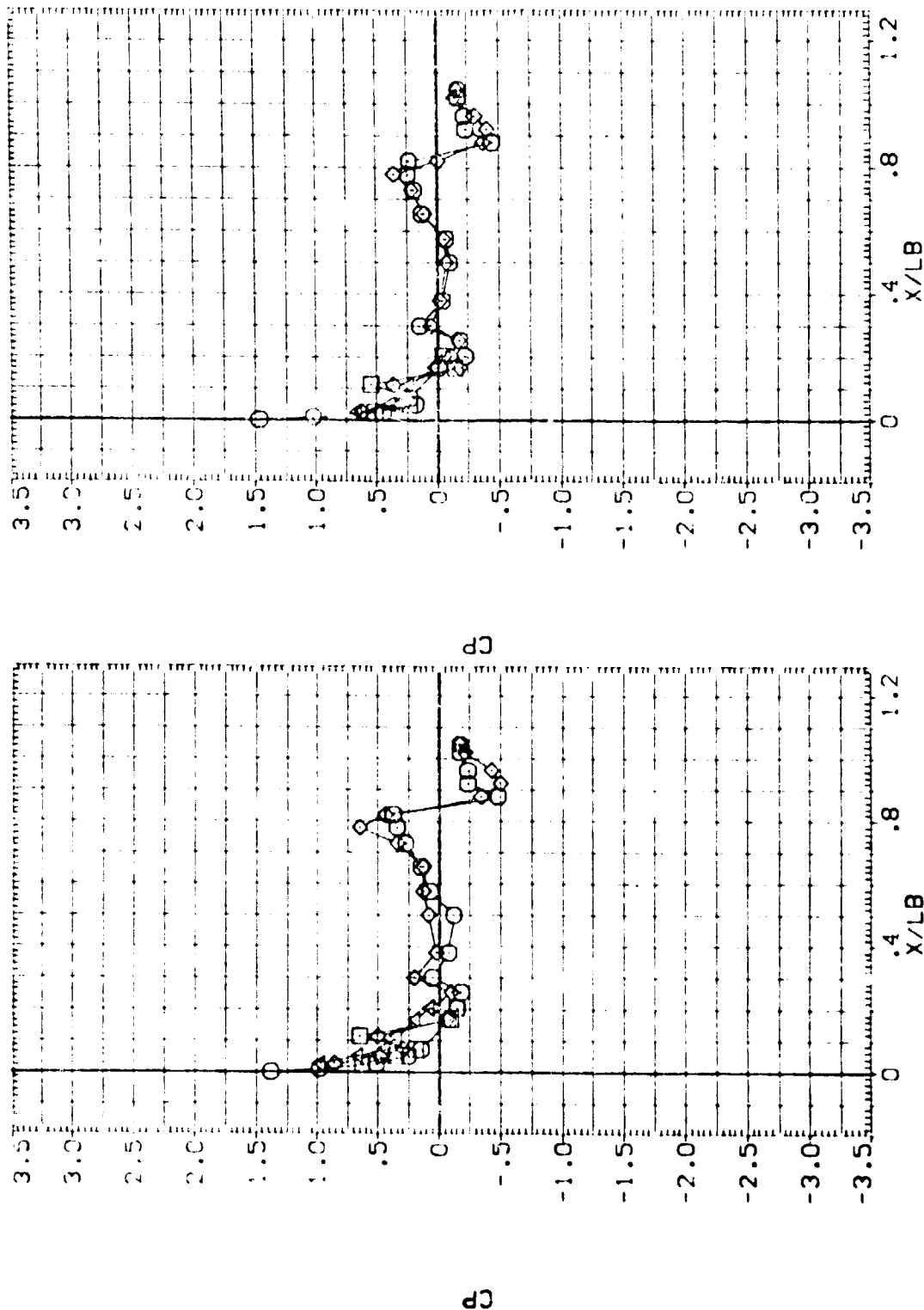
PHI  
 .000  
 20.000  
 40.000  
 55.000

BETAS  
 -8.09C  
 .020

ALPHAS  
 -3.70

PARAMETRIC VALUES

MACH  
 RUDDER  
 1.400  
 .000  
 ELEVON  
 SPOILER  
 .000  
 .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+112+S12N25+AT11 ORB. FUSELAGE (R81B40)

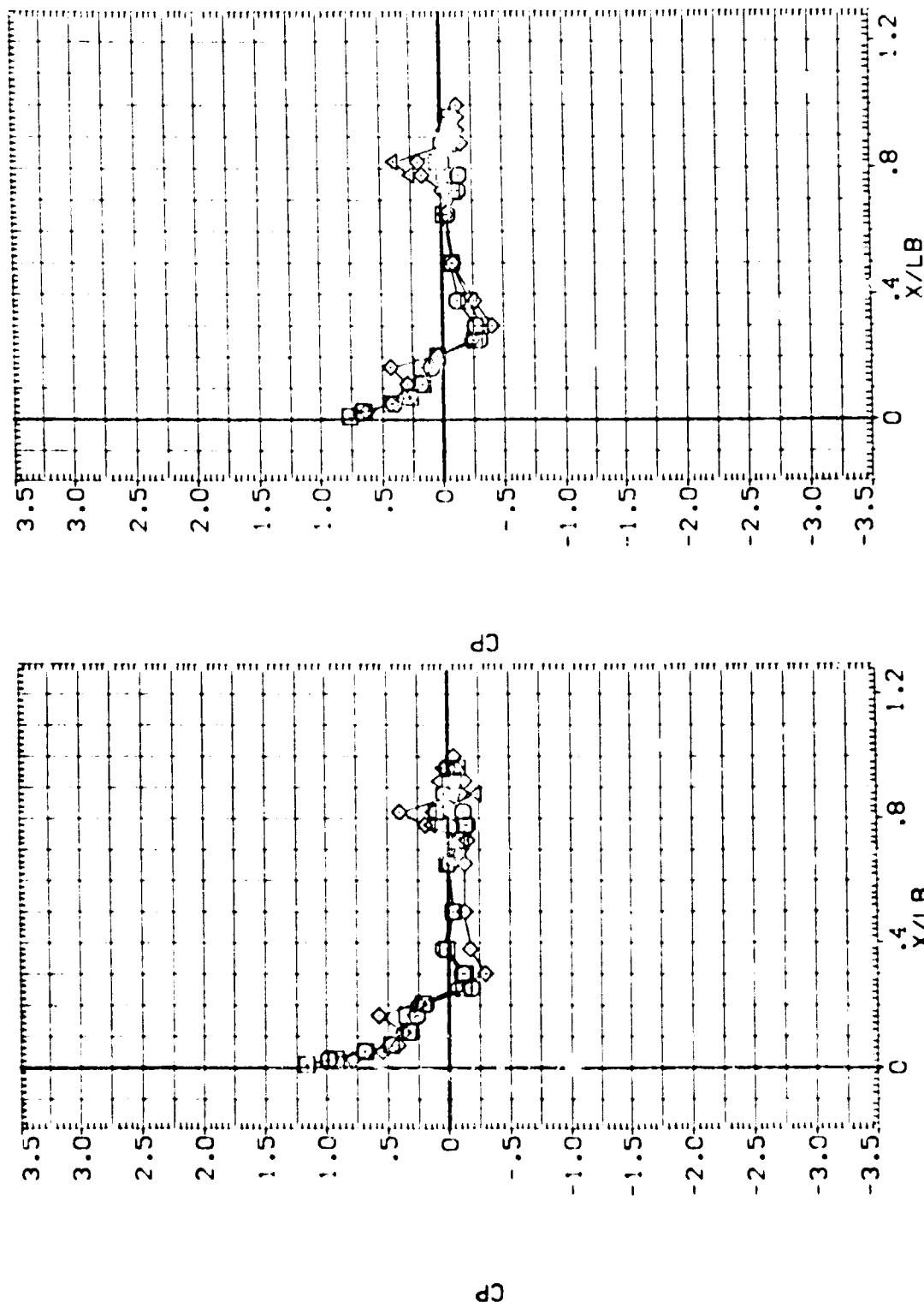
SYMBOL  
 ○ □ ◇ △

PHI 70.000  
 90.000  
 120.000  
 135.000

BETA0 -0.090  
 .020

ALPHA0 -1.370

PARAMETRIC VALUES  
 MACH 1.400  
 ELEVON .000  
 RUDDER .000  
 SPOILER .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 OPB. FUSELAGE (RB1B40)

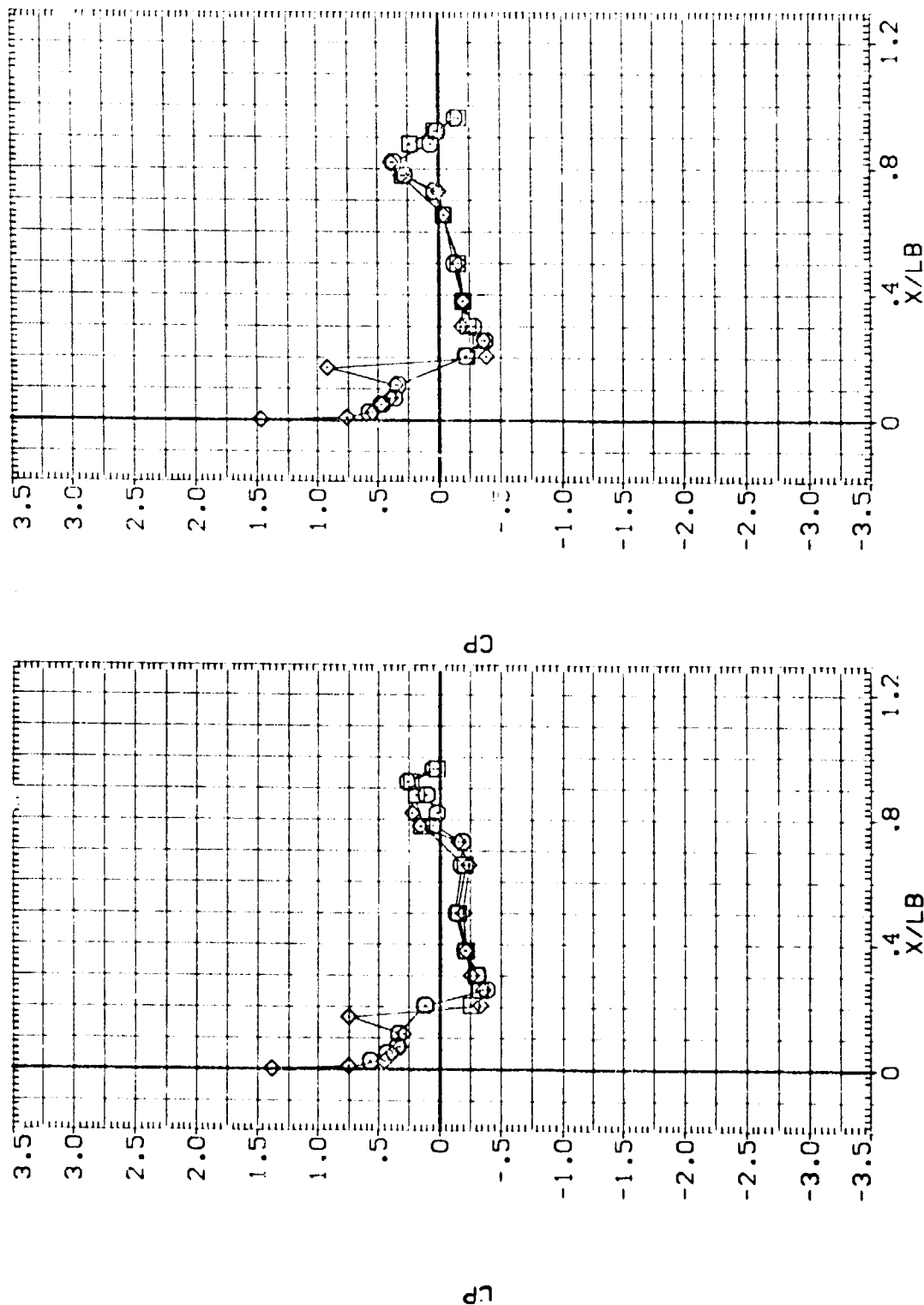
SYMBOL  
 ○  
 □  
 ◇

PHI  
 150.000  
 165.000  
 180.000

BETA0  
 -8.090  
 .020

ALPHA0  
 -.370

PARAMETRIC VALUES  
 MACH 1.400  
 ELEVON .000  
 SPOILER .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 IAI4 01+T12+S12N25+AT11 ORB. FUSELAGE (RB1B40)

SYMBOL

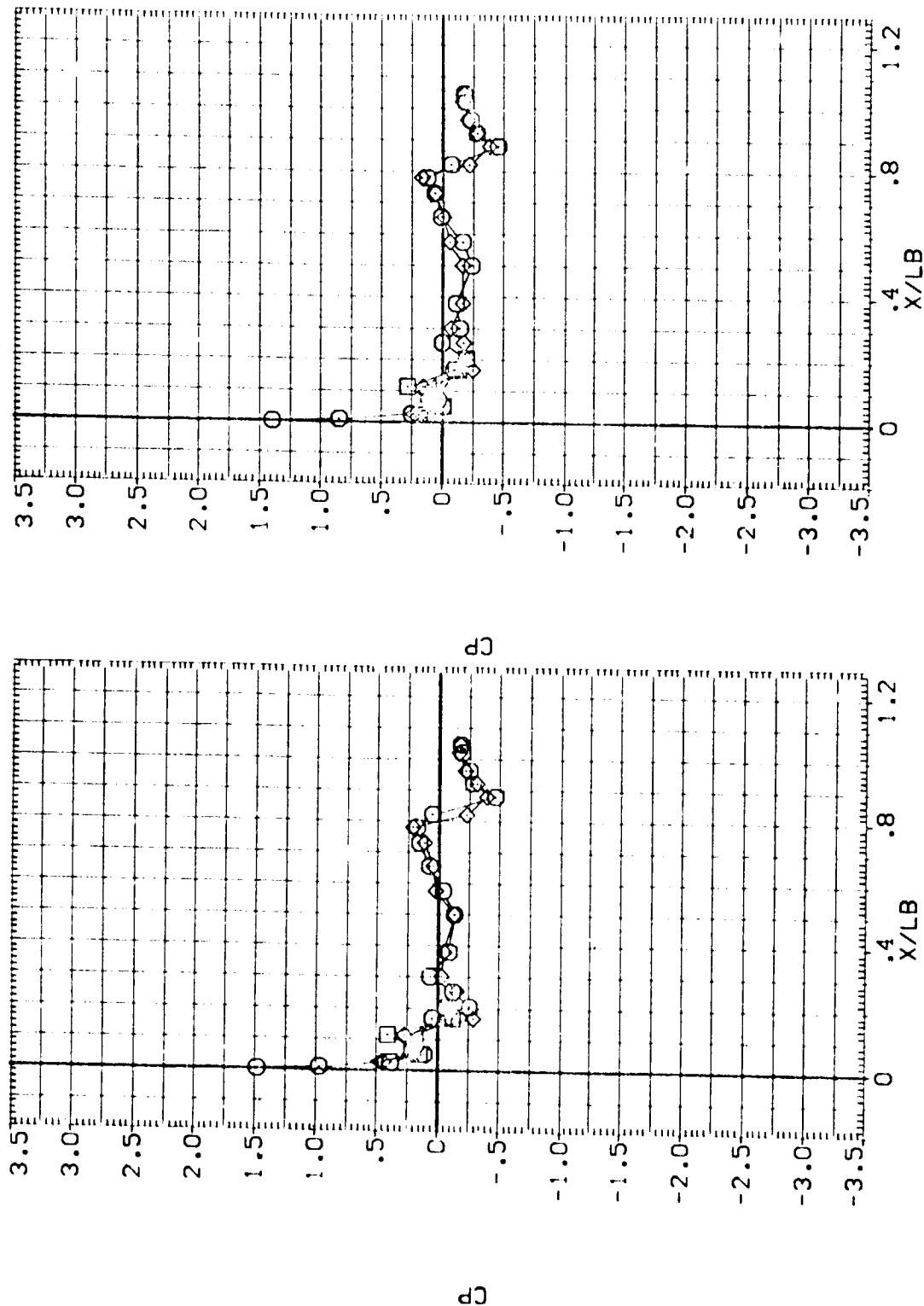
○ □ ◇ △

PHI .000  
20.000  
40.000  
55.000

BETA0 4.090  
8.140

ALPHA0 -.390

PARAMETRIC VALUES  
MACH 1.400  
RUDDER .000  
ELEVON .000  
SPOBRK .000

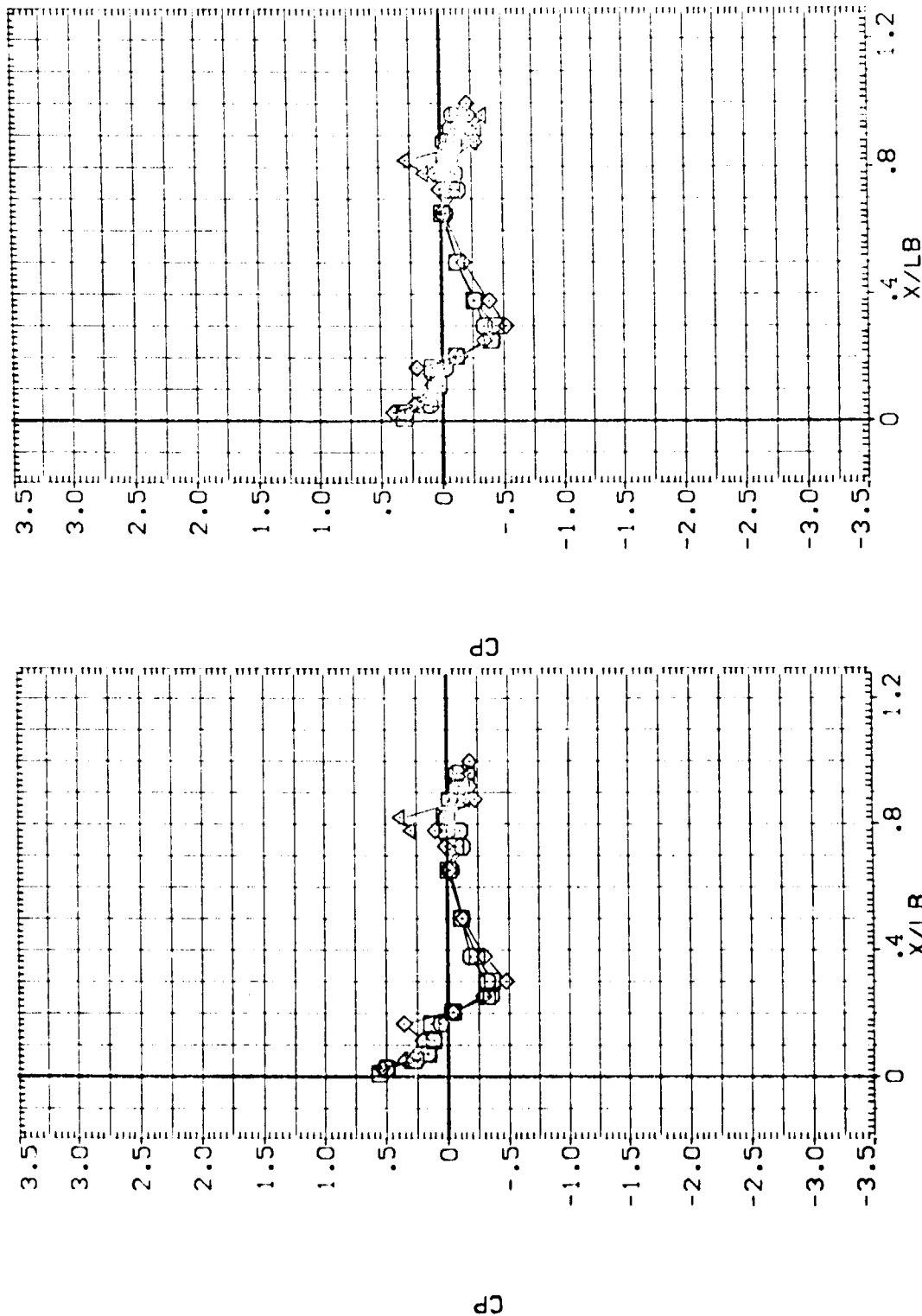


LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 IA14 C1+T12+S12N25+AT11 ORB. FUSELAGE (RB1B40)

PARAMETRIC VALUES  
MACH 1.400  
RUDDER .000  
ELEVON .000  
SPDBRY .000

SYMBOL PHI BETA<sub>0</sub> ALPHA<sub>0</sub>  
O 70.000 4.090 -3.90  
□ 90.000 8.140  
◇ 120.000  
△ 135.000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 ORB. FUSELAGE (RB1B40)

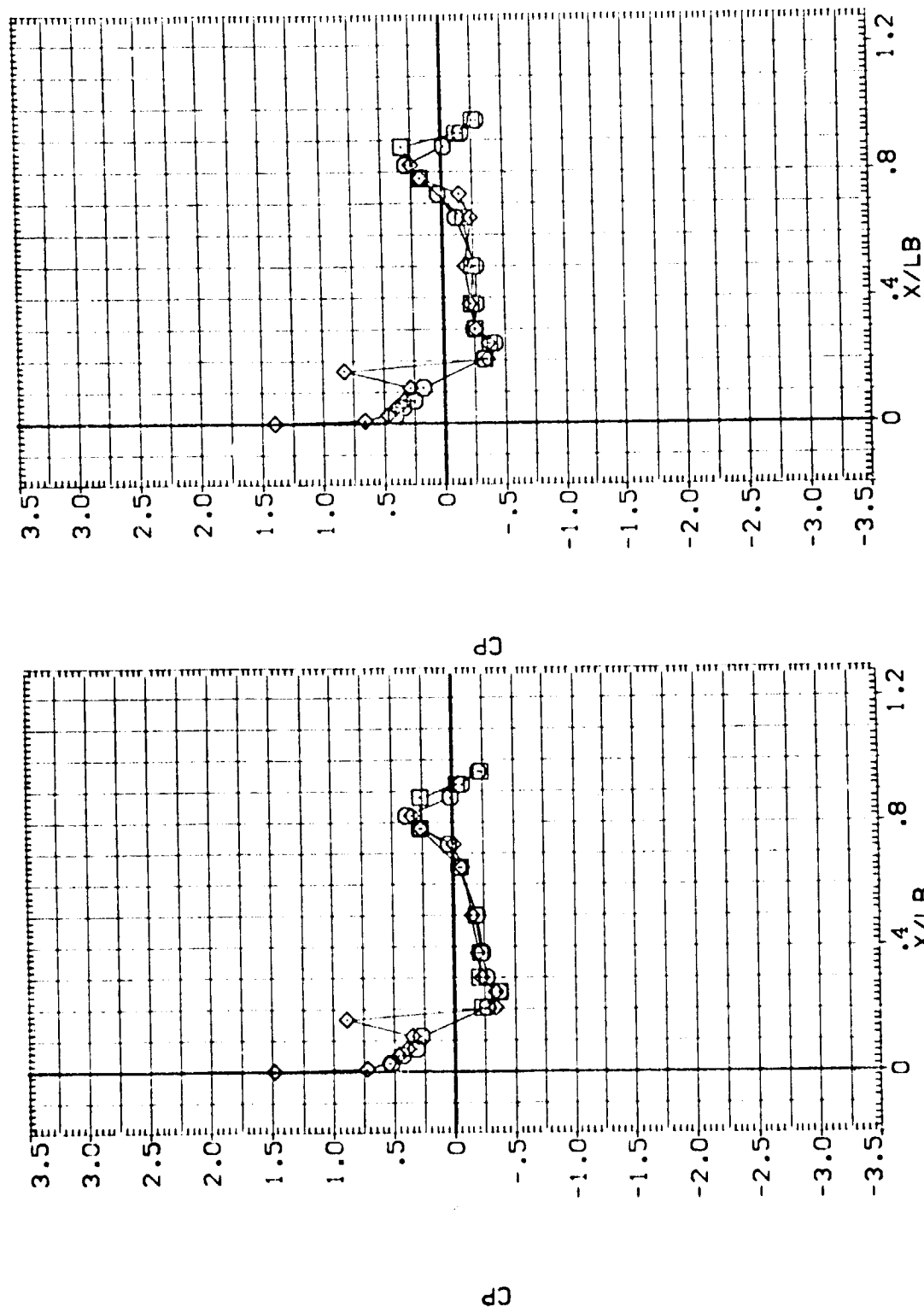
SYMBOL  
 ○ □ ◇

PHI 150.00  
 165.000  
 180.000

BETA 4.090  
 8.140

ALPHA 0  
 -0.390

PARAMETRIC VALUES  
 MACH 1.400  
 RUDDER .000  
 ELEVON .000  
 SPOILER .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 IA14 01+T12+S12N25+AT11 ORB. FUSELAGE (RB1B40)

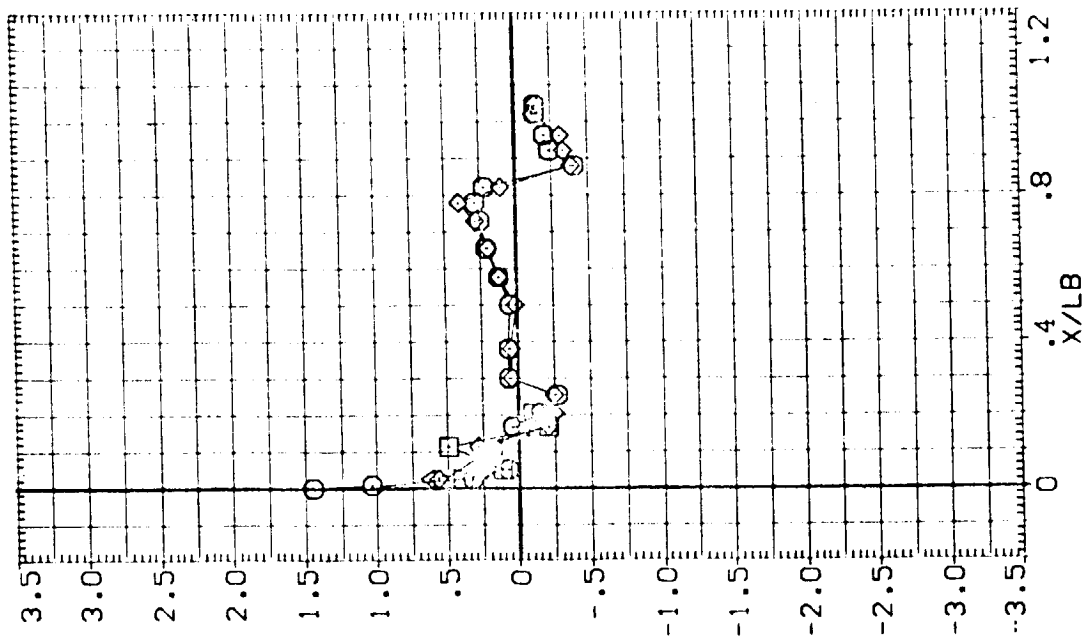
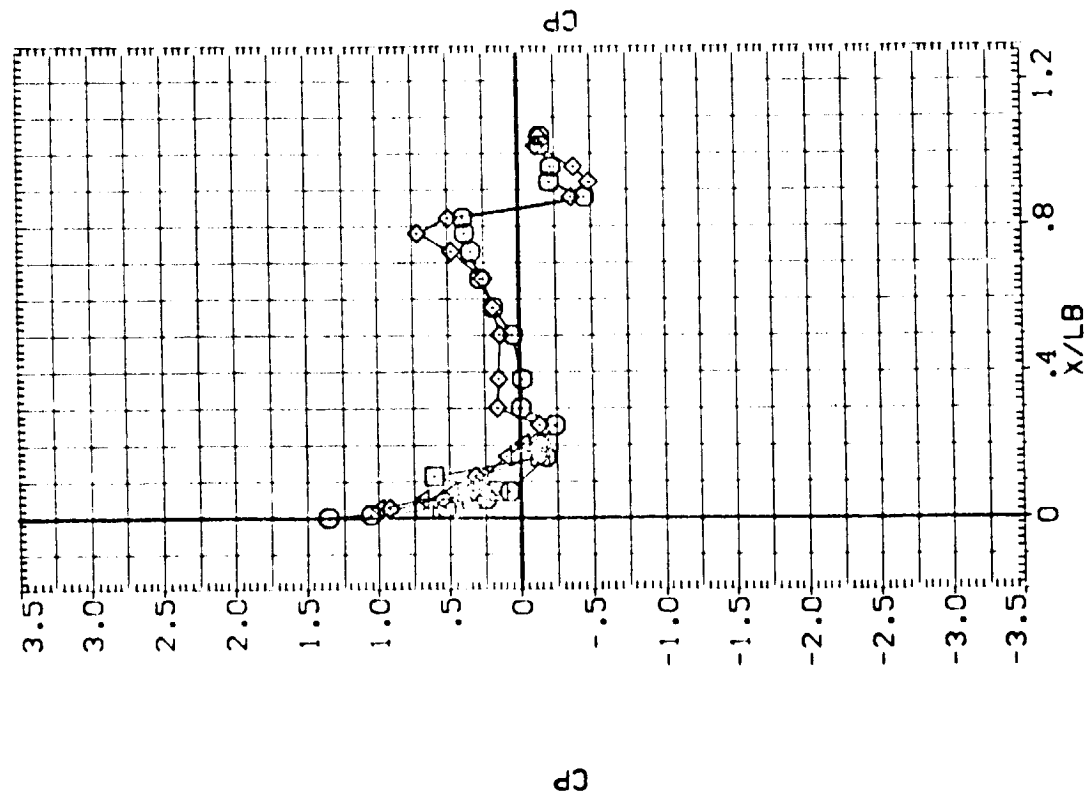
SYMBOL  
 ○  
 □  
 ◇  
 △

PHI  
 .000  
 20.000  
 40.000  
 55.000

BETA0  
 -8.060  
 .030

ALPHA0  
 8.000

PARAMETRIC VALUES  
 MACH 1.400  
 RUDDER .000  
 ELEVON .000  
 SPOBRX .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 ORB. FUSELAGE (RB1B40)

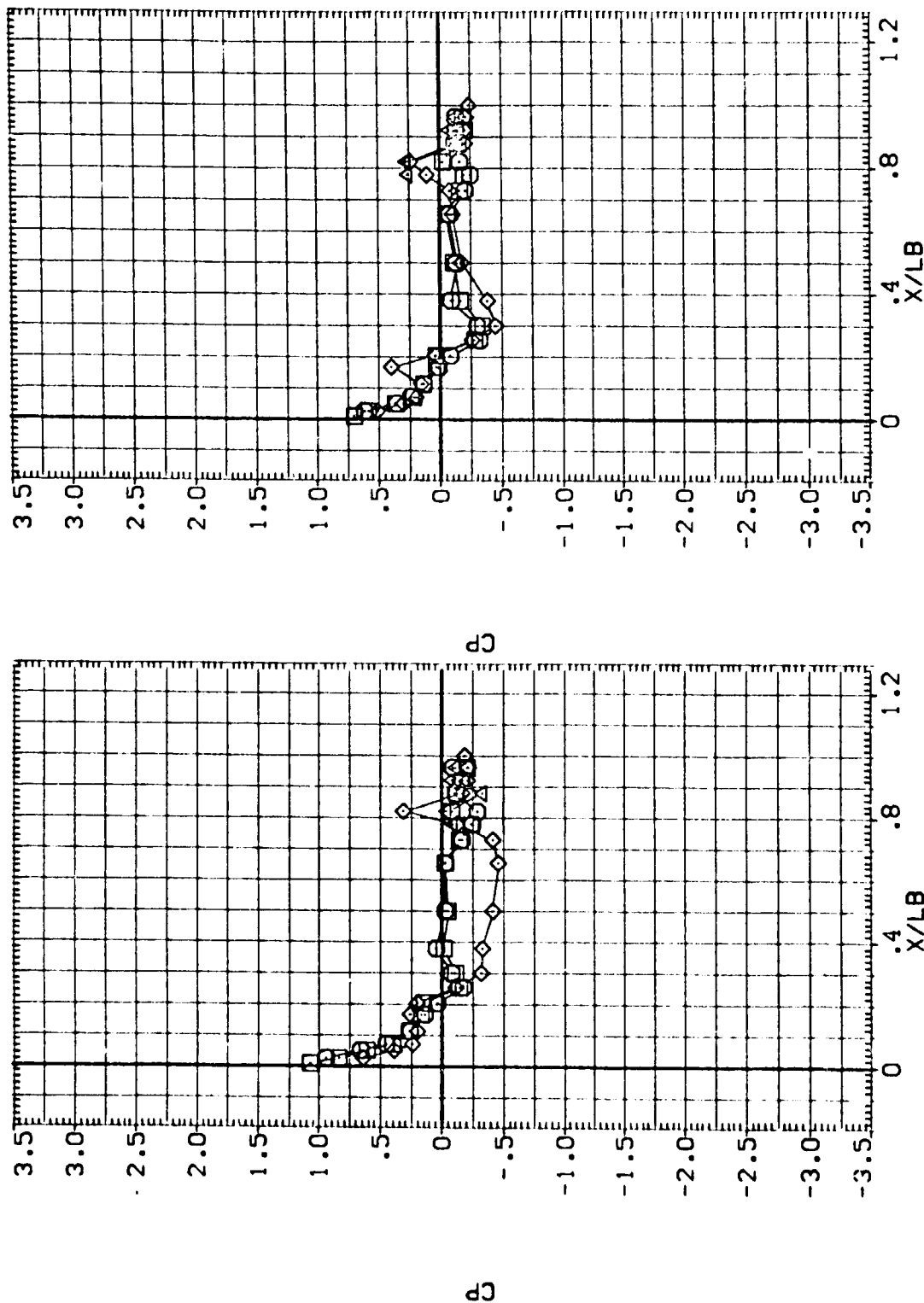
SYMBOL  
 ○  
 □  
 ◇  
 △

PHI  
 70.000  
 90.000  
 120.000  
 135.000

BETA  
 -8.060  
 .030

ALPHA  
 8.000

PARAMETRIC VALUES  
 MACH 1.400  
 RUDDER .000  
 ELEVON .000  
 SPOILER .000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES



# ARC11-716 IA14 01+T12+S12N25+AT11 ORB. FUSELAGE (RB1B40)

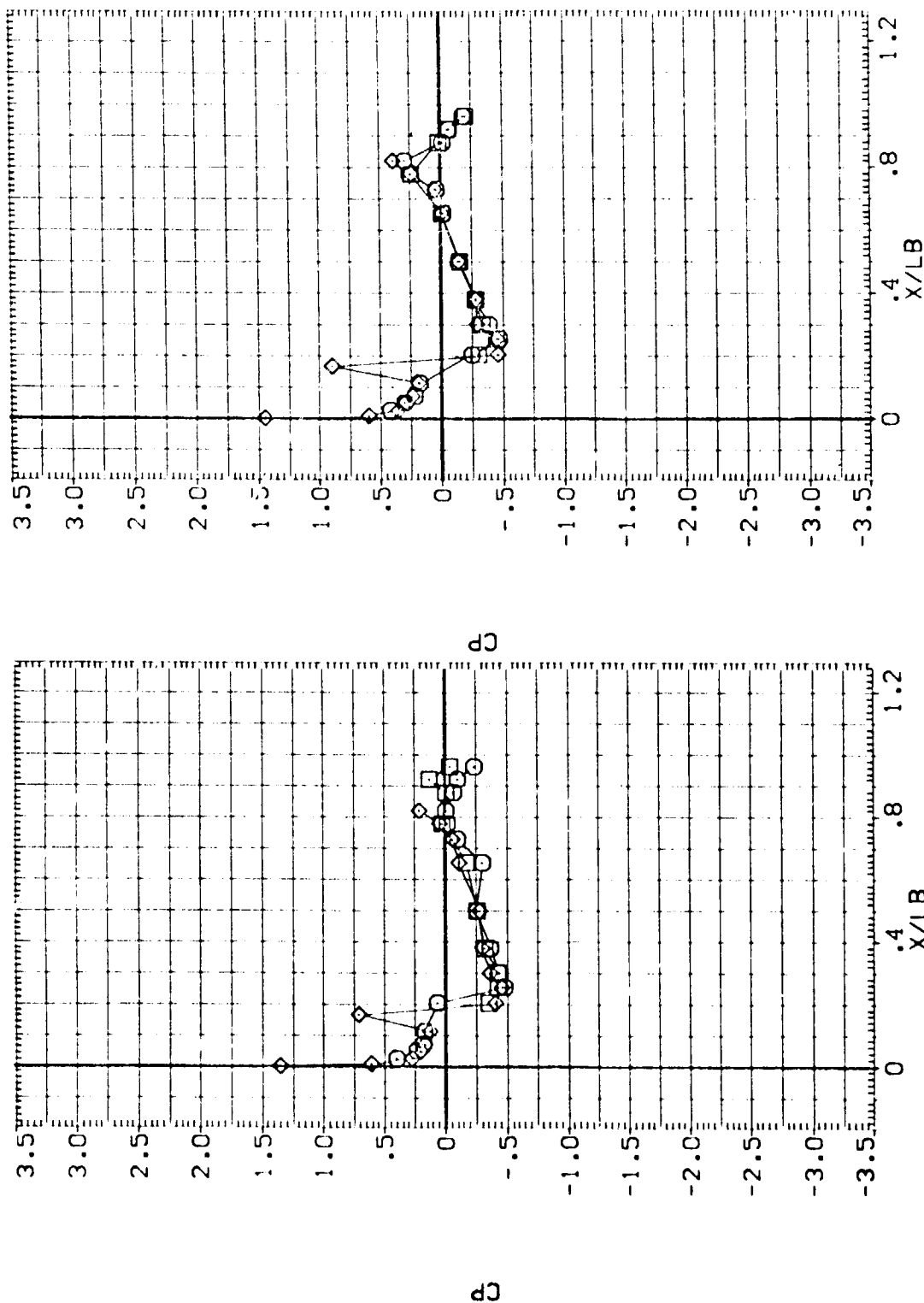
SYMBOL  
○  
□  
◇

MAI  
150.000  
165.000  
180.000

BETA0  
-8.060  
.030

ALPHA0  
8.000

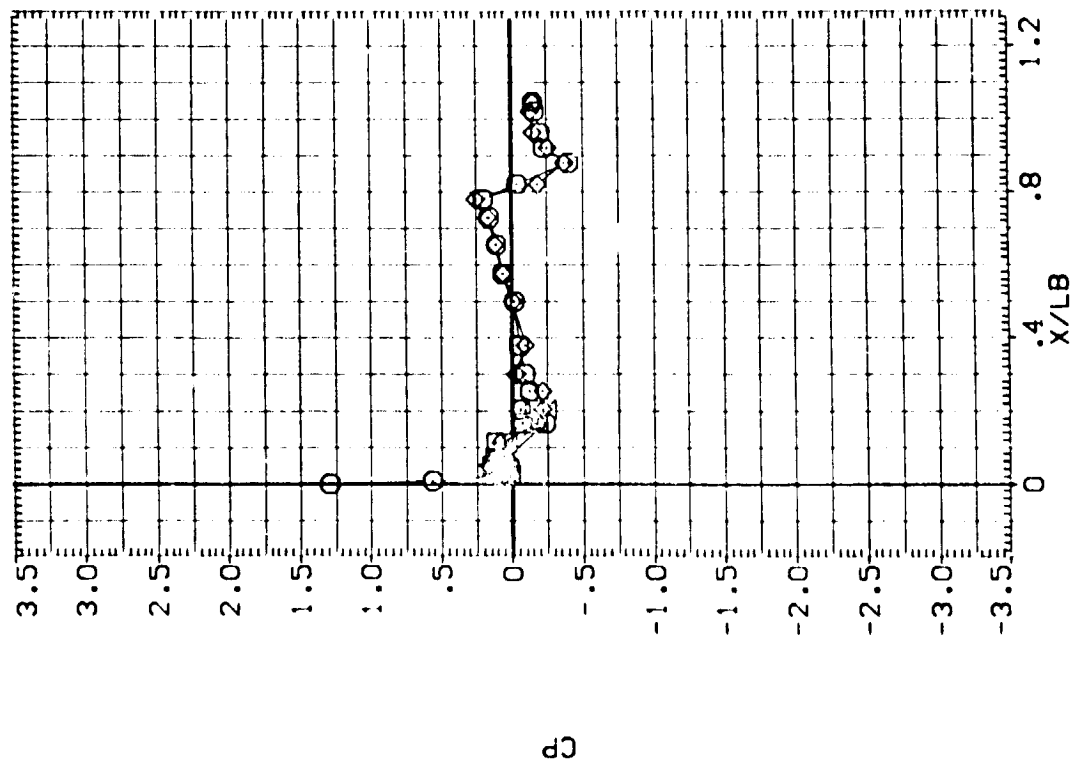
PARAMETRIC VALUES  
MACH  
1.400  
ELEV/DN  
.000  
RUDDER  
SPOBRK  
.000  
.000



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 ORB. FUSELAGE (RB1B40)

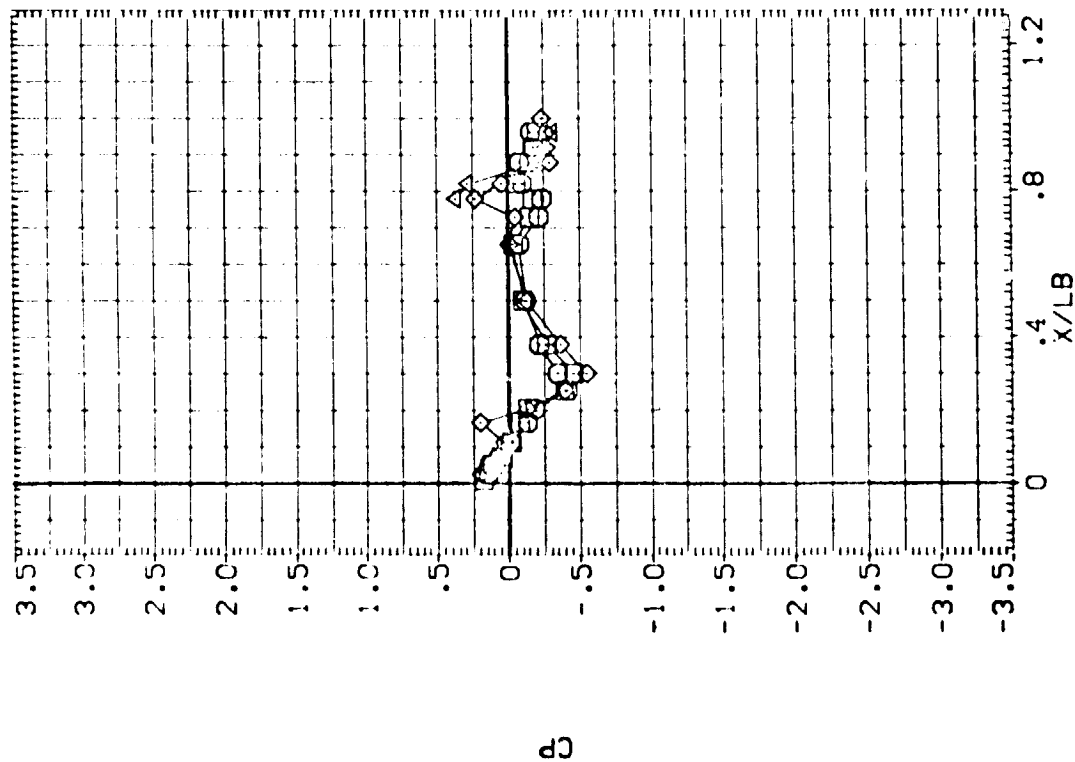
SYMBOL	PHI	BETA	ALPHA	PARAMETRIC VALUES
○	.000	8.210	8.000	MACH 1.400 ELEVON .000
□	20.000			RUDER .000 SPDRK .000
◇	40.000			
△	55.000			



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 IA14 01+T12+S12N25+AT11 ORB. FUSELAGE (RB1B40)

SYMBOL	PHI	BETA	ALPHA	MACH	PARAMETRIC VALUES
○	70.000	8.210	8.000	RUDDER	1.400 ELEVON
◇	90.000				.000 SPOBRK
△	120.000				
	135.000				



LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 ORB. FUSELAGE (RB1B40)

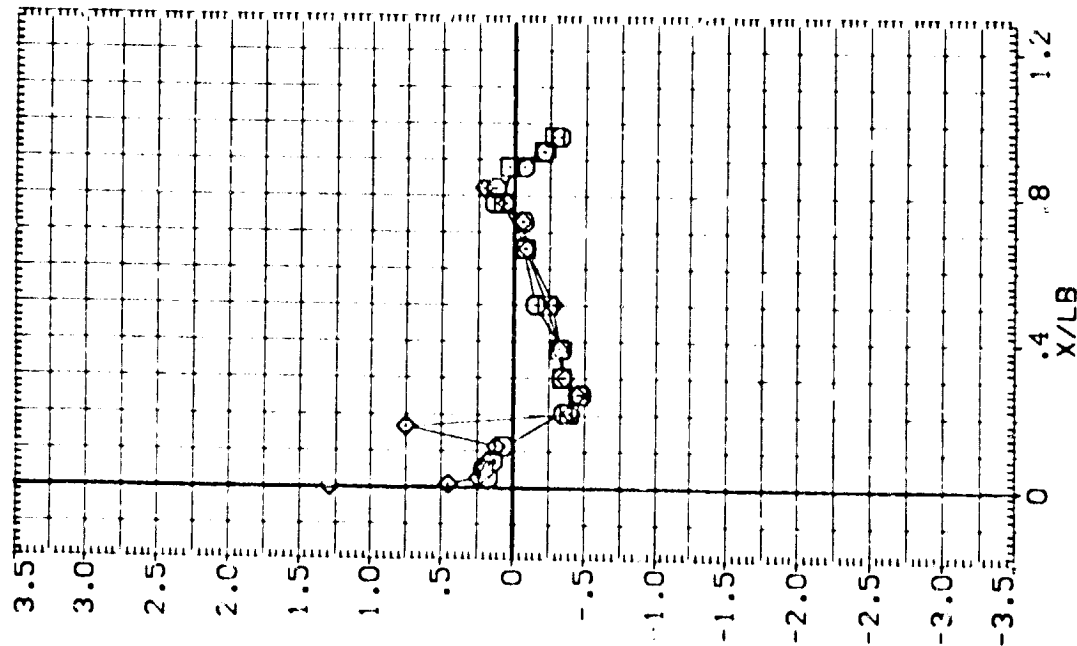
SYMBOL

P-H  
150.000  
165.000  
180.000

BETA  
8.210  
8.000

PARAMETRIC VALUES

MACH 1.400  
RUDDER .000  
ELEVON .000  
SPOILER .000



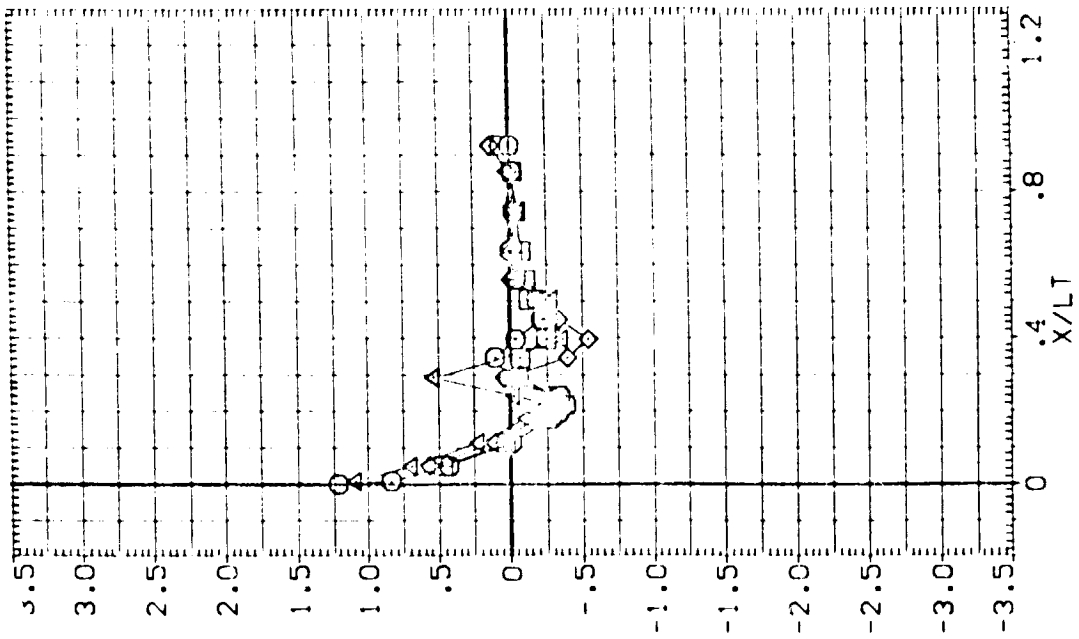
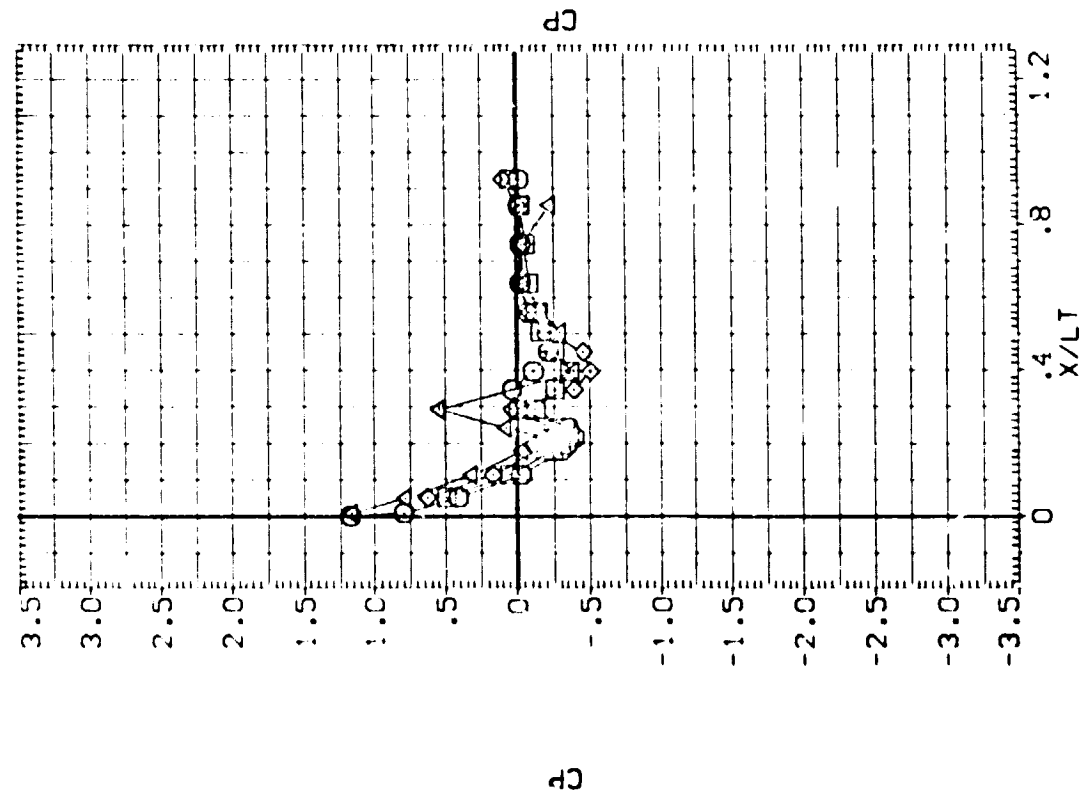
LONGITUDINAL DISTRIBUTION OF ORBITER FUSELAGE PRESSURES

# ARC11-716 (A14 01+T12+S12N25+AT10 EXTERNAL TANK (RB1T33))

SYMBOL  
 ○ 0.000  
 □ 30.000  
 ◇ 60.000  
 △ 90.000

PHI BETAO ALPHAQ  
 .000 -7.960 -8.240  
 30.000 -3.980

PARAMETRIC VALUES  
 MACH 1.250 ELEVON .000  
 RUDDER .000 SPOBRK .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 EXTERNAL TANK (RB1133)

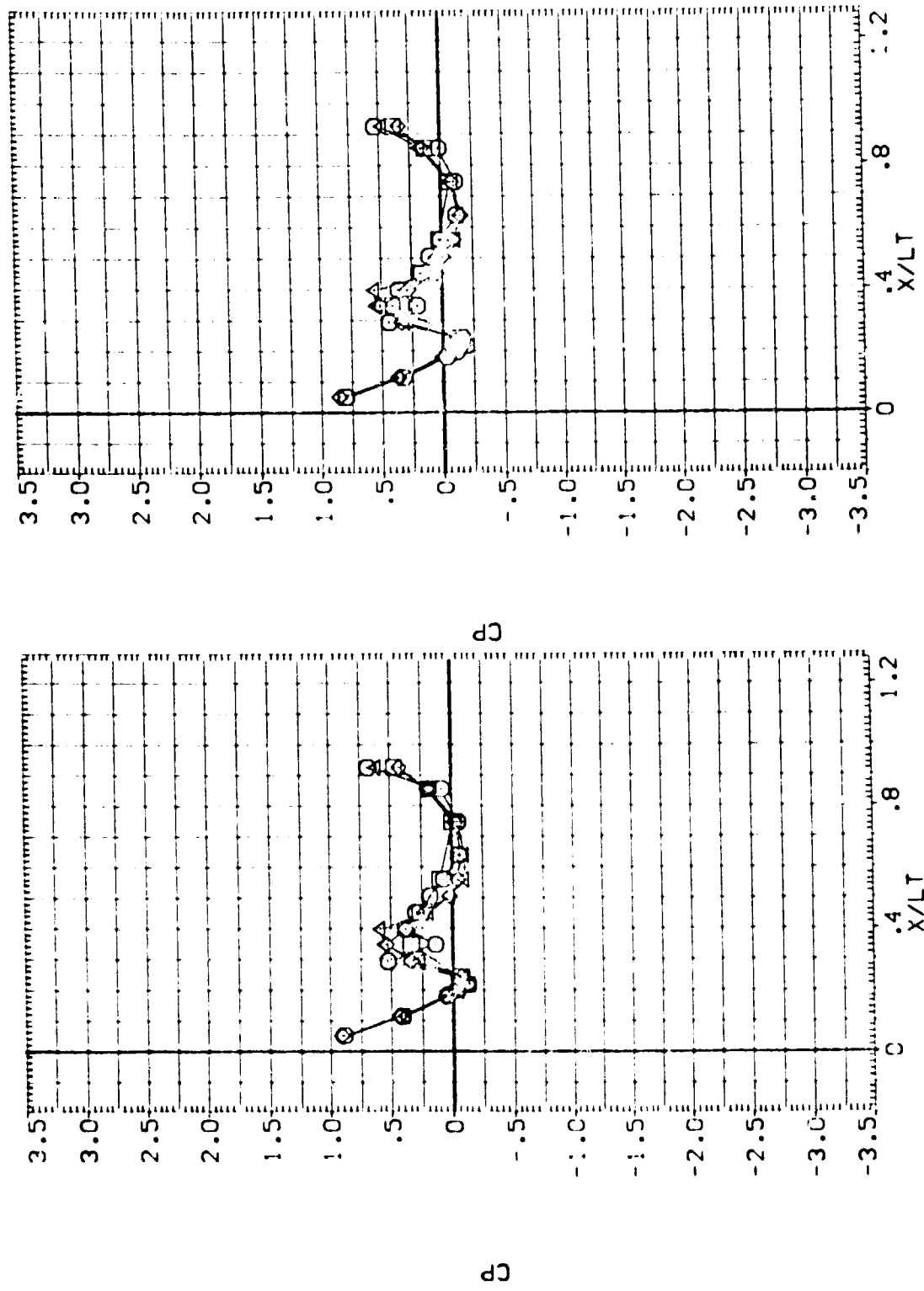
PARAMETRIC VALUES  
 MACH 1.250 ELEVON .000  
 RUDDER .000 SPOILER .000

SYMBOL  
 ○  
 ◇  
 △

PHI  
 120.000  
 135.000  
 150.000  
 165.000

BETA  
 -7.960  
 -3.980

ALPHA  
 -8.240



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+112+S12N25+AT10 EXTERNAL TANK (RB1133)

SYMBOL

○

PHI

180.000  
270.000

BETA

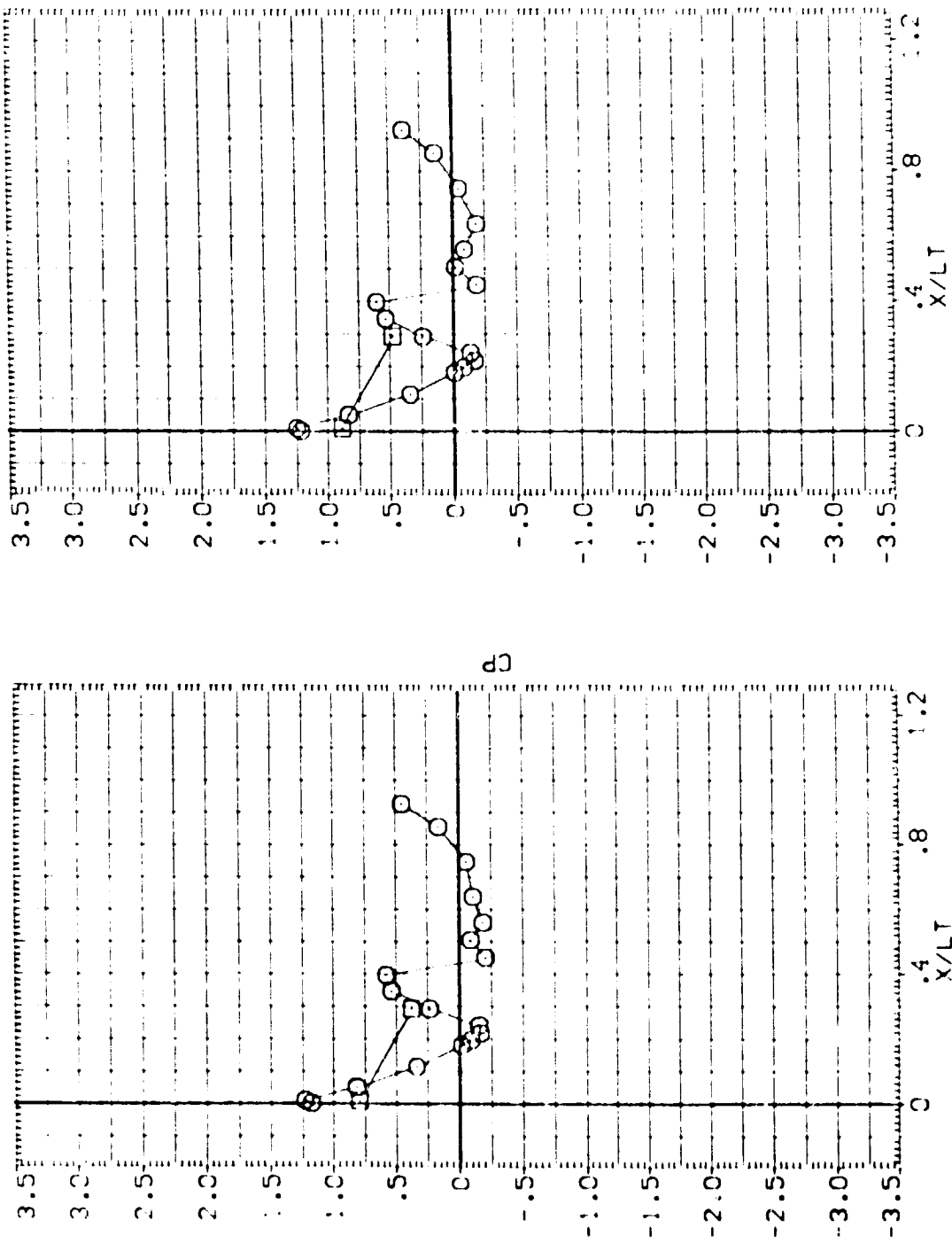
-7.960  
-3.930

ALPHA

-8.240

PARAMETRIC VALUES

MACH 1.250  
ELEVON .000  
RUDDER .000  
SPOILER .000



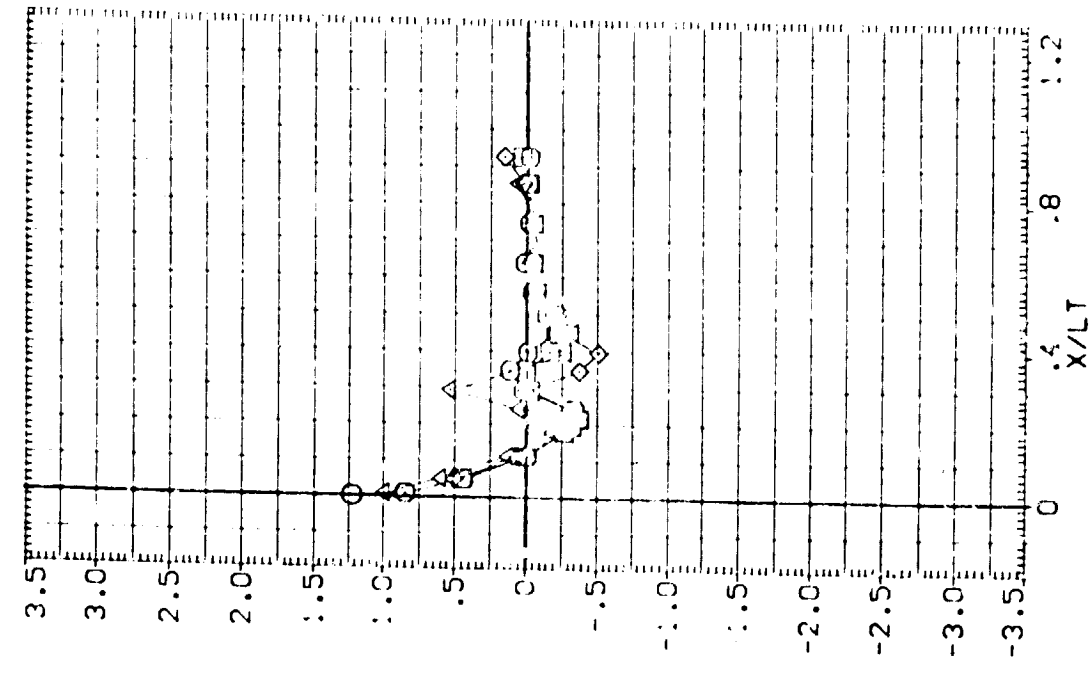
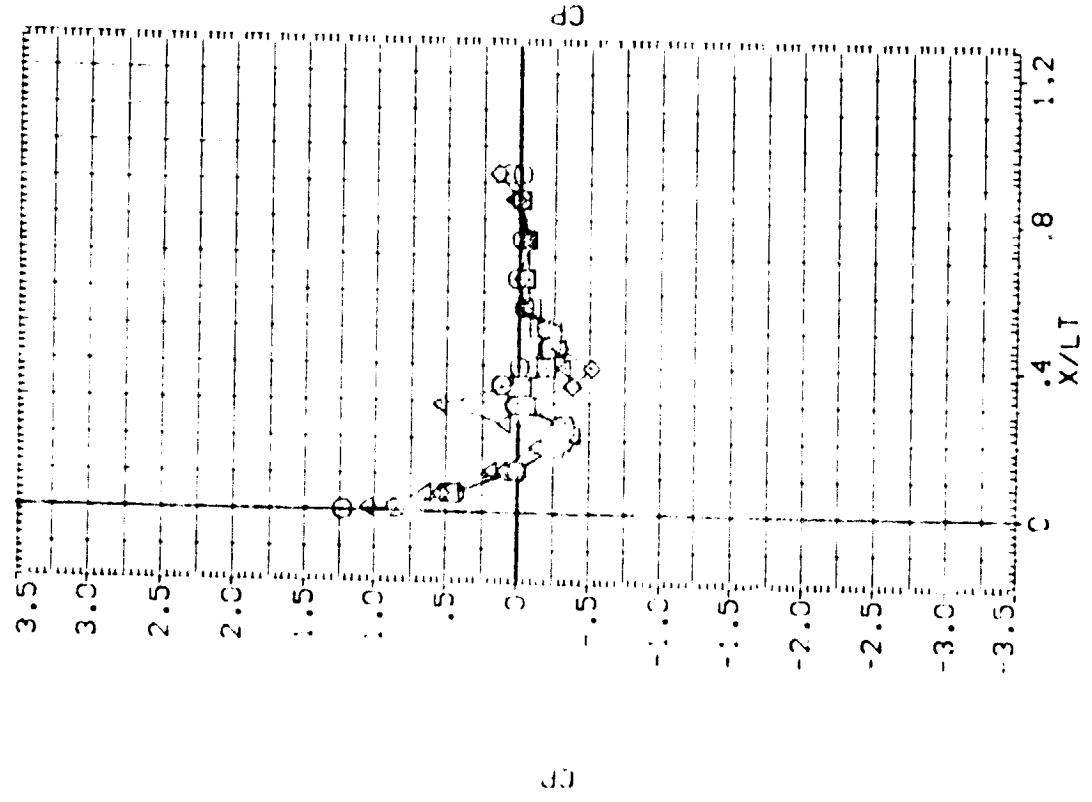
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC:-7:16 [A14 0:1:12+S12N25+AT10 EXTERNAL TANK (RB1T33)

SYMB:  
 ○ 30.000  
 ◇ 60.000  
 △ 90.000

PHI BETAO ALPHA3  
 .000 -1.990 -8.250  
 30.000 .010  
 60.000  
 90.000

PARAMETRIC VALUES  
 MACH 1.250 ELEVON .000  
 RUDDER .000 SPDBW .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



ARC11-716 1A14 01+112+S12N25+AT10 EXTERNAL TANK (RB1133)

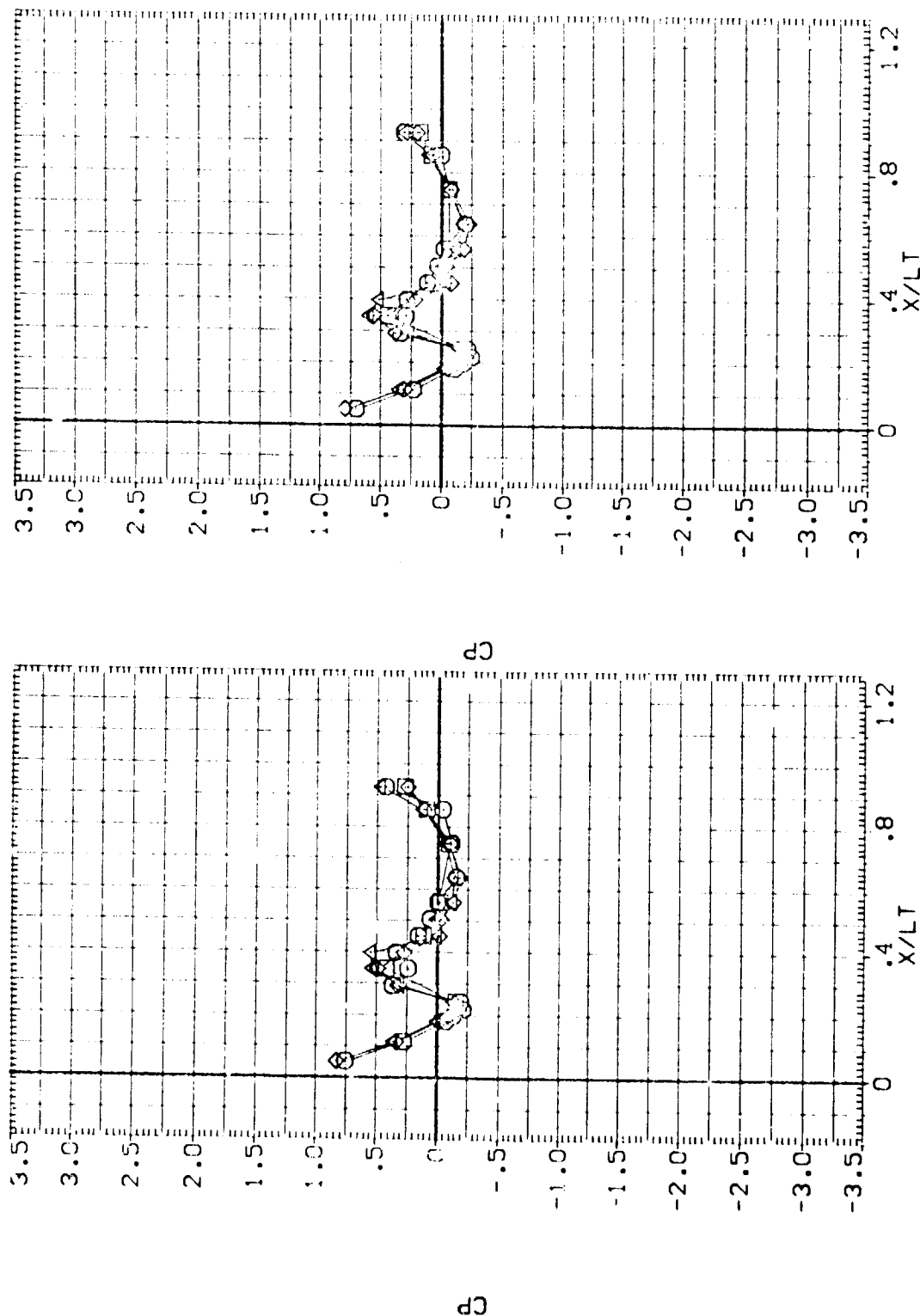
SYMBOL  
 O □ △

PHI 120.000  
 130.000  
 150.000  
 155.000

BETA0 -1.890  
 .010

ALPHA0 -8.250

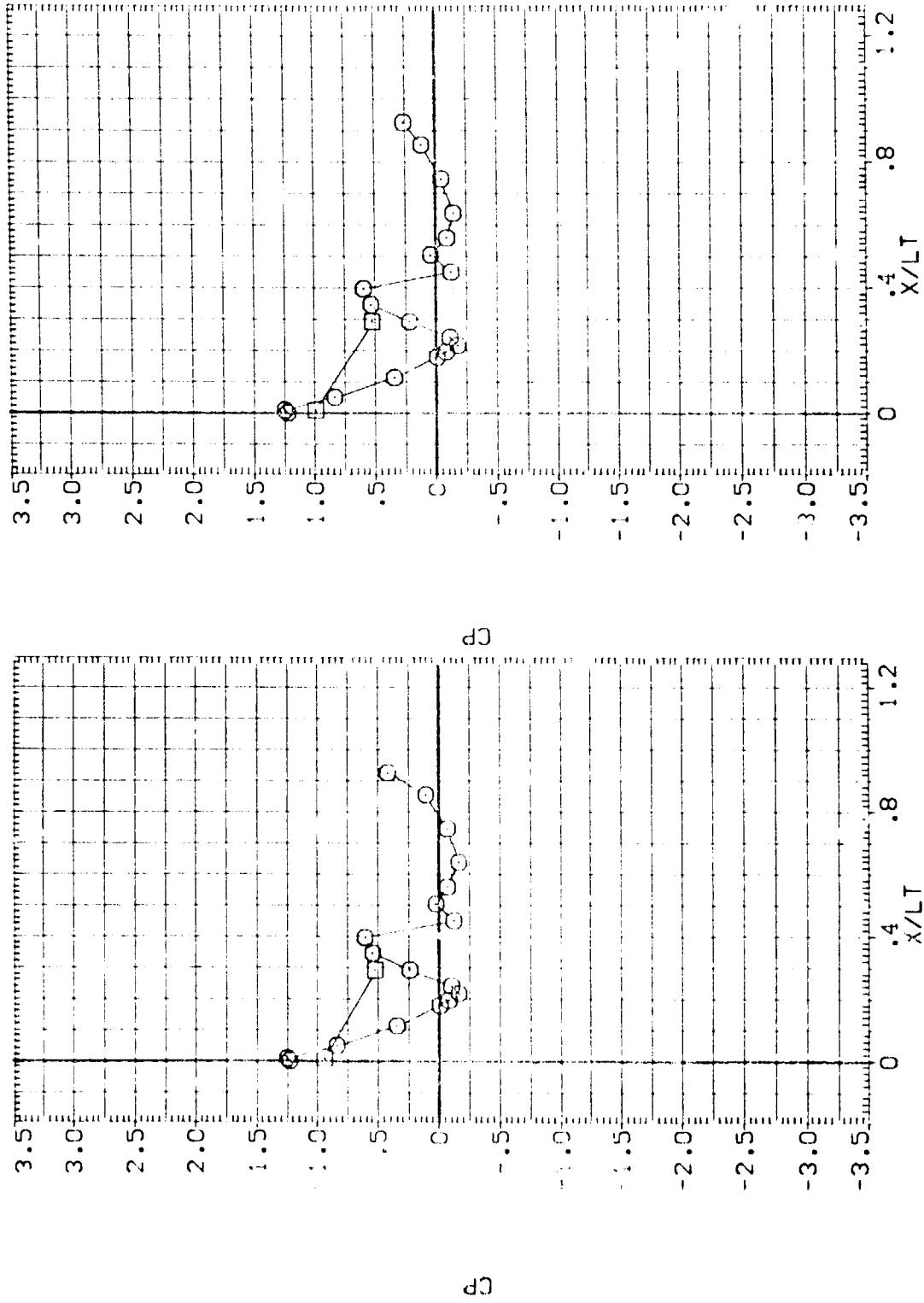
PARAMETRIC VALUES  
 MACH 1.7 J ELEVON .000  
 RUDDER .000 SPOILER .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 EXTERNAL TANK (RB1T33)

SYMBOL	PHI	BETA0	ALPHA0	MACH	ELEVON
	180.000	-1.990	-8.25C	1.250	.000
	270.000	.010		.000	.000
				RJDER	SPDRK



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+112+S12N25+AT10 EXTERNAL TANK (RB1133)

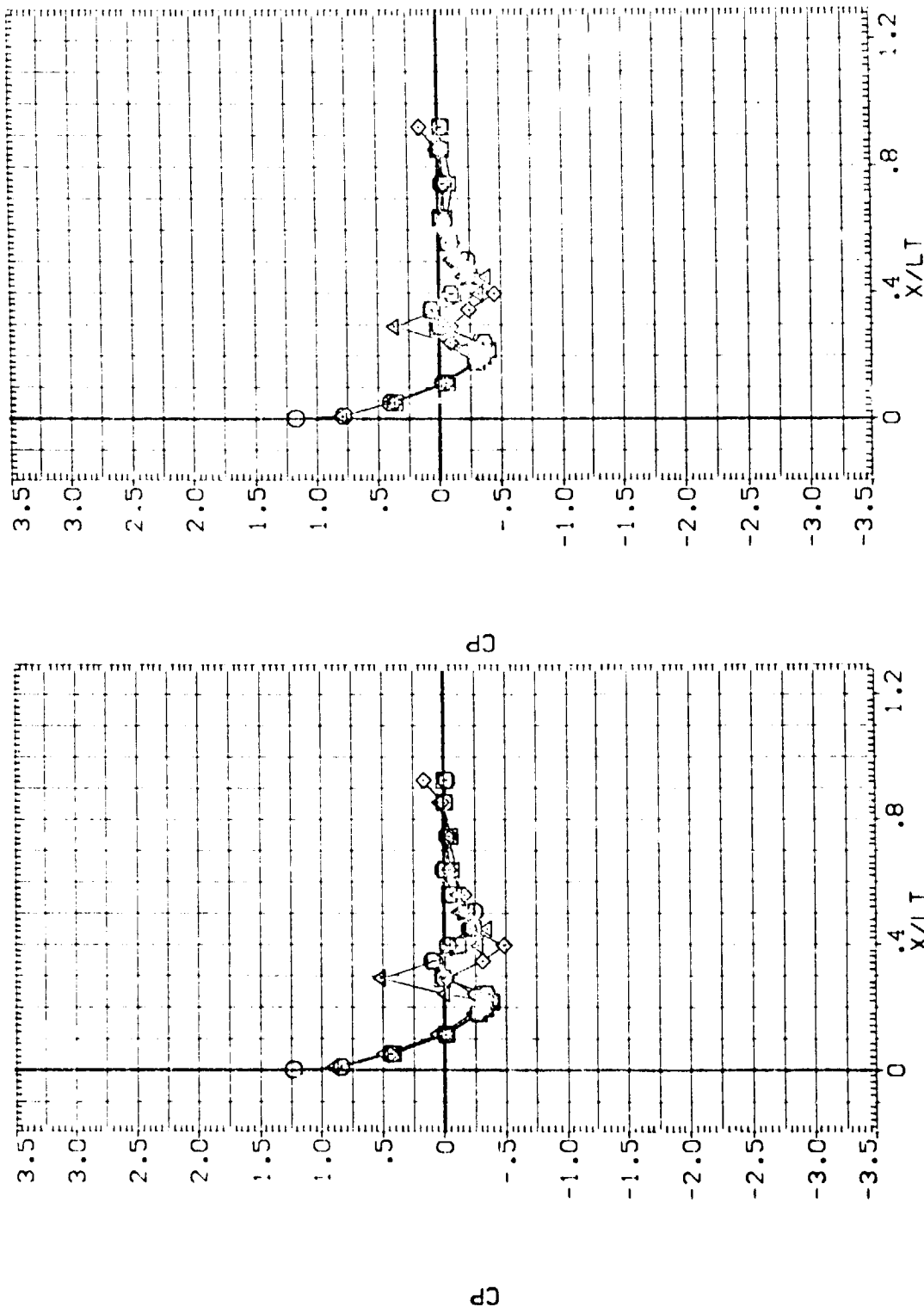
SYMBOL  
○ □ ◇ △

PHI .000  
30.000  
60.000  
90.000

BETA0 4.040  
8.100

ALPHA0 -8.230

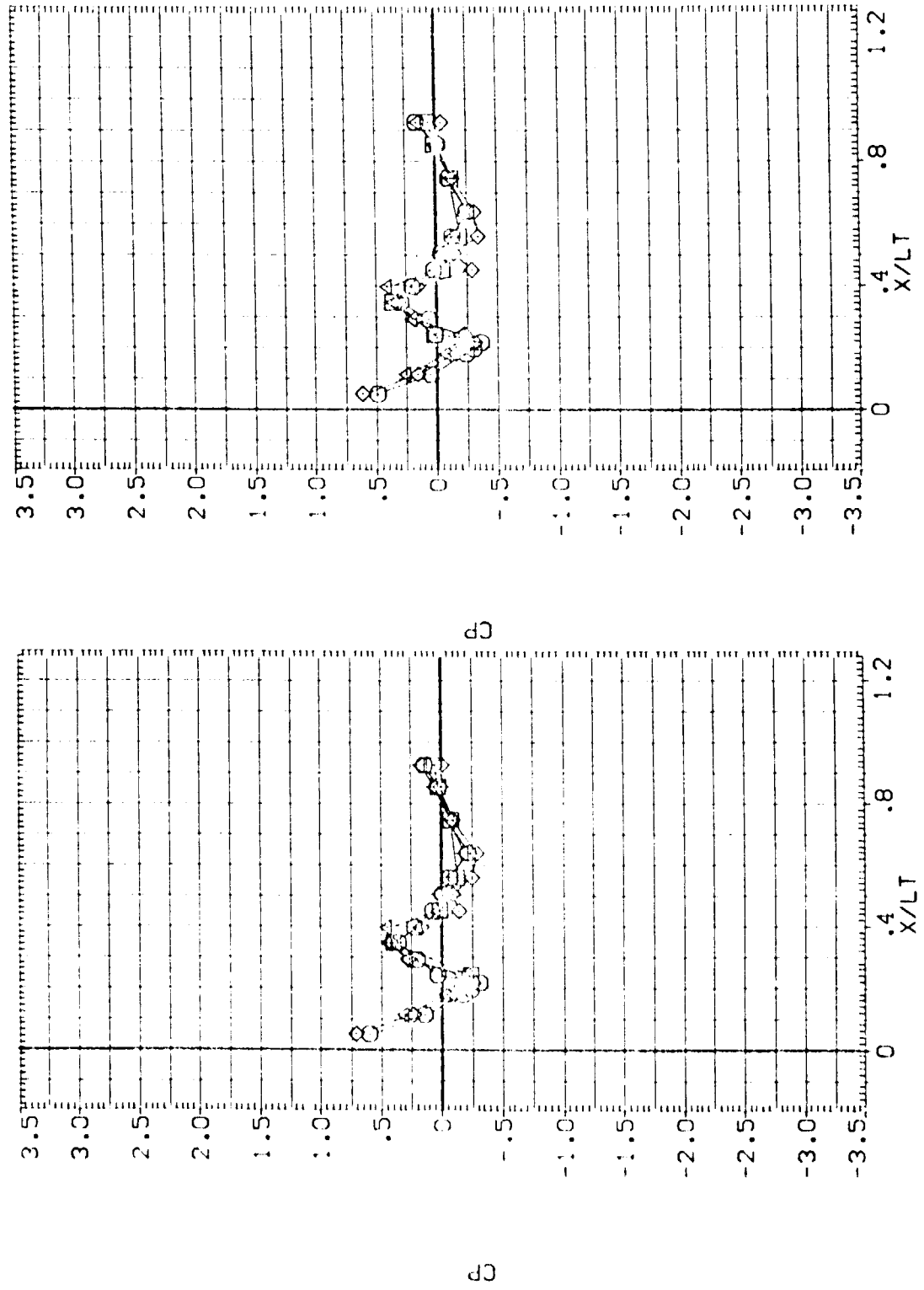
PARAMETRIC VALUES  
MACH 1.250  
RUDDER .000  
ELEVON .000  
SPDBRK .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 EXTERNAL TANK (RB1T33)

SYMBOL	PHI	BETA	ALPHA	MACH	ELEV	SPDRK
○	120.000	4.040	-8.230	1.250	.000	.000
◇	135.000	8.100		.000	.000	.000
△	150.000					
	165.000					



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

# ARC11-716 IA14 01+T12+S12N25+AT10 EXTERNAL TANK (RB1T33)

SYMBOL

PHI

BETA0

ALPHA0

180.000  
270.000

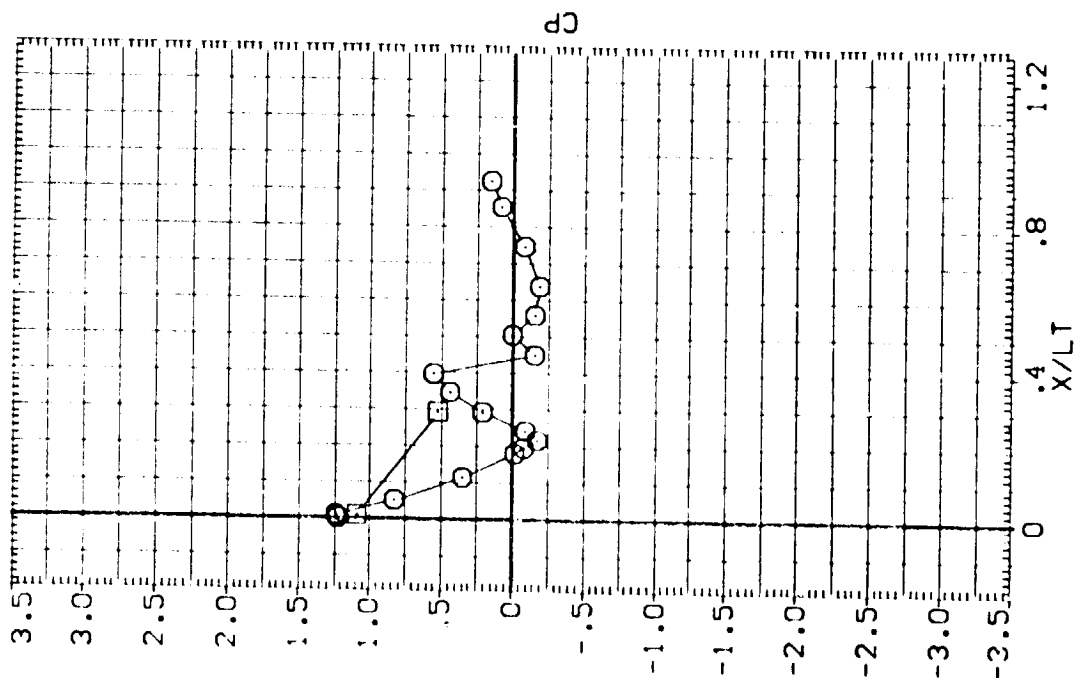
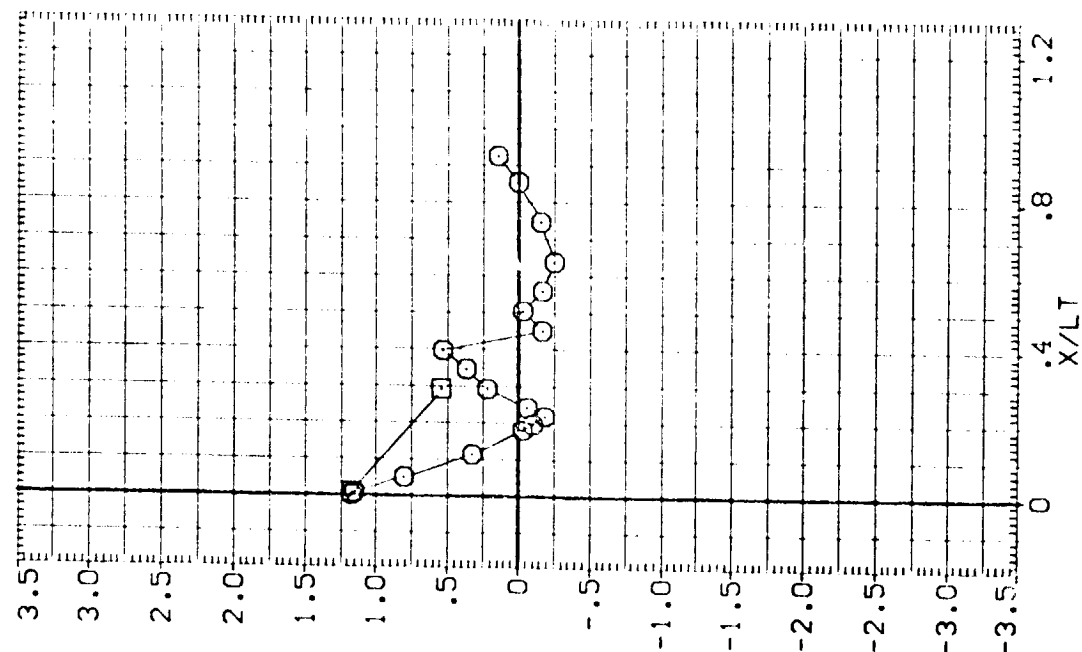
4.040  
8.100

-8.230

PARAMETRIC VALUES

1.250  
.000  
ELEVON  
SPDRK  
.000  
.000

MACH  
RUDDER



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC1:-716 1A14 01+T12+S12N25+AT10 EXTERNAL TANK (RB1T33)

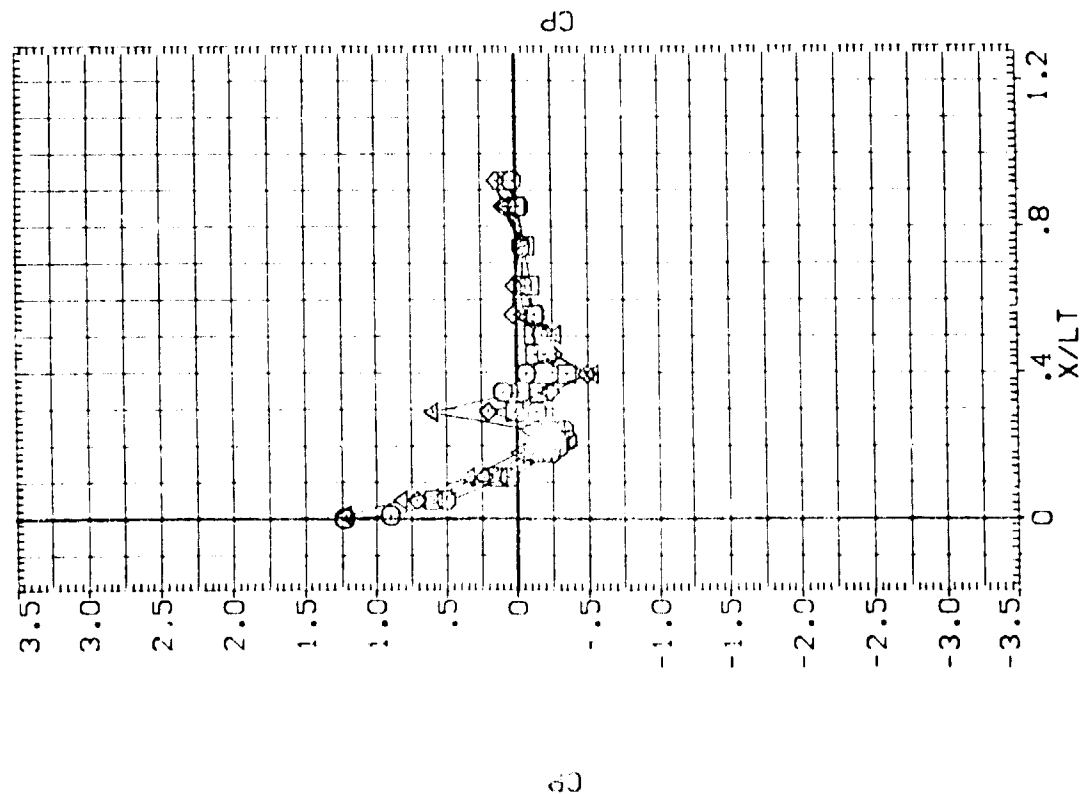
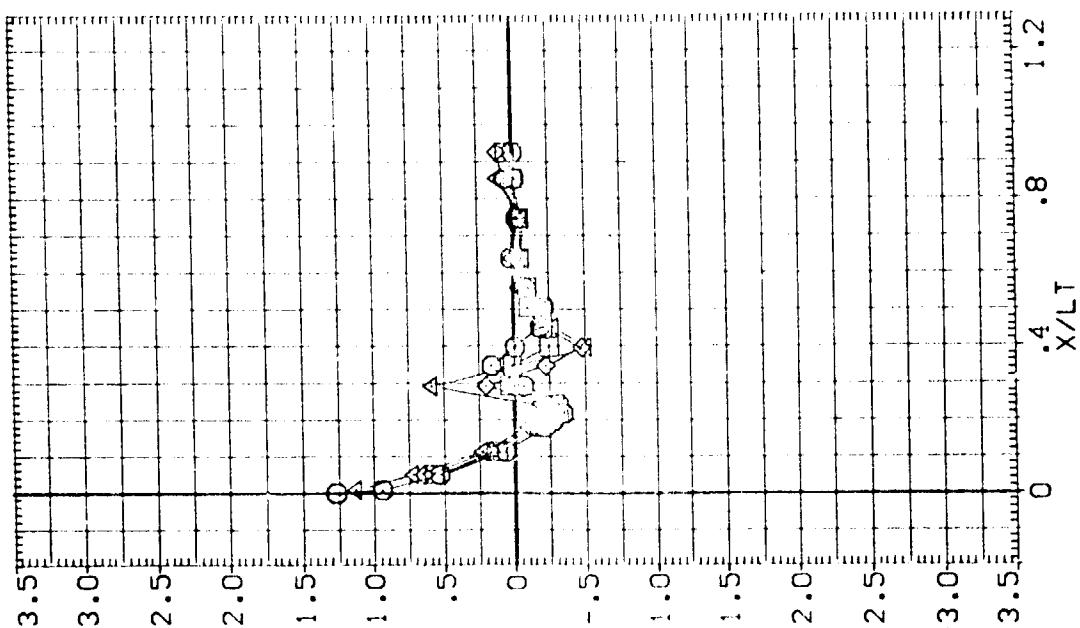
SYMBOL  
 O □ ◇ △

PHI  
 .000  
 30.000  
 60.000  
 90.000

BETA0  
 -7.990  
 -3.950

ALPHA/O  
 -4.230

PARAMETRIC VALUES  
 MACH 1.250 ELEVON .000  
 RUDDER .000 SPOBRK .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 EXTERNAL TANK (RB1T33)

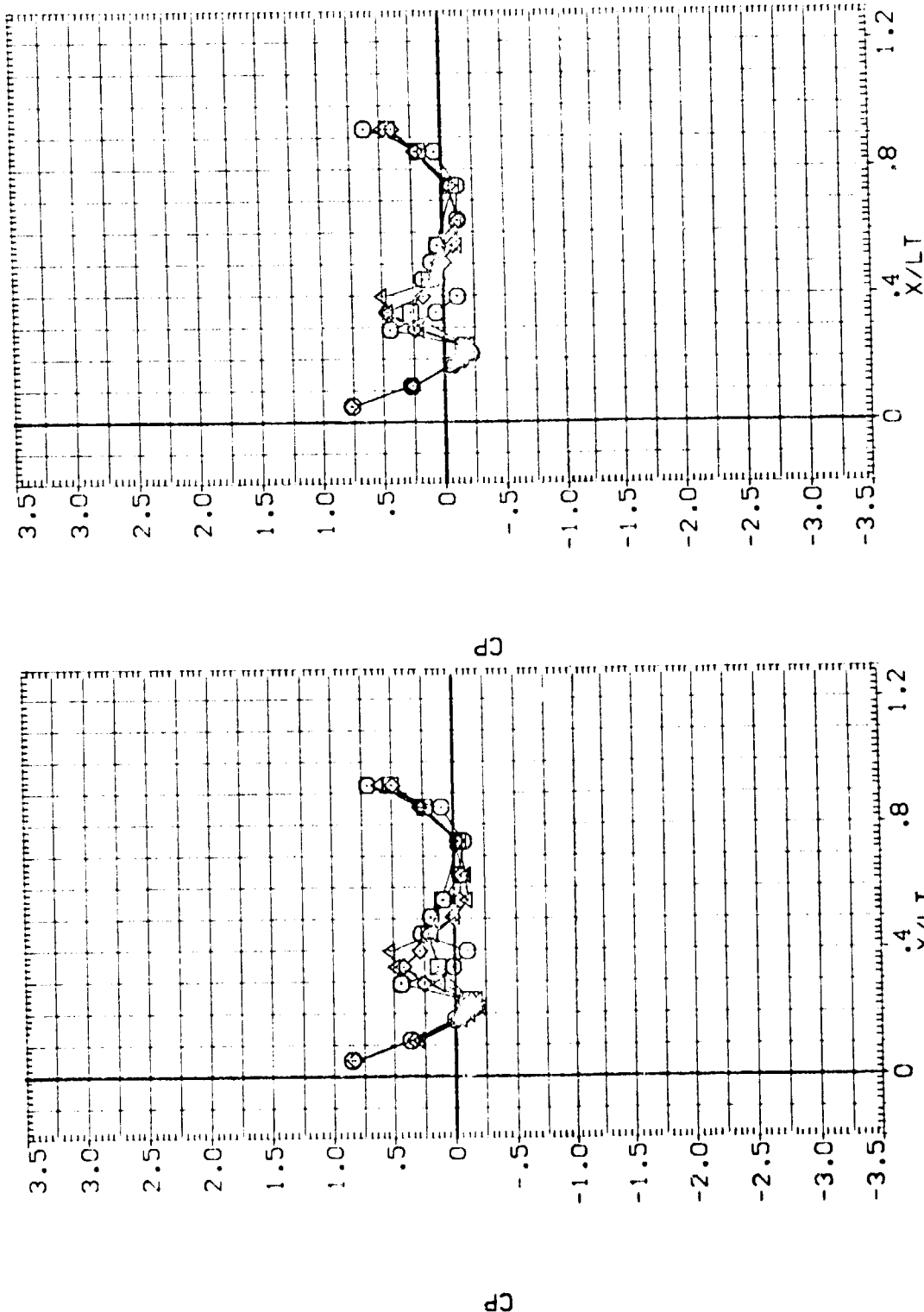
SYMBOL  
 ○  
 □  
 ◇  
 △

PHI  
 120.000  
 135.000  
 150.000  
 165.000

BETA0  
 -7.990  
 -3.950

ALPHA0  
 -4.230

PARAMETRIC VALUES  
 MACH 1.250  
 RUDDER .000  
 ELEVON .000  
 SPOILER .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



ARC11-716 1A14 01+T12+S12N25+AT10 EXTERNAL TANK (RB1T33)

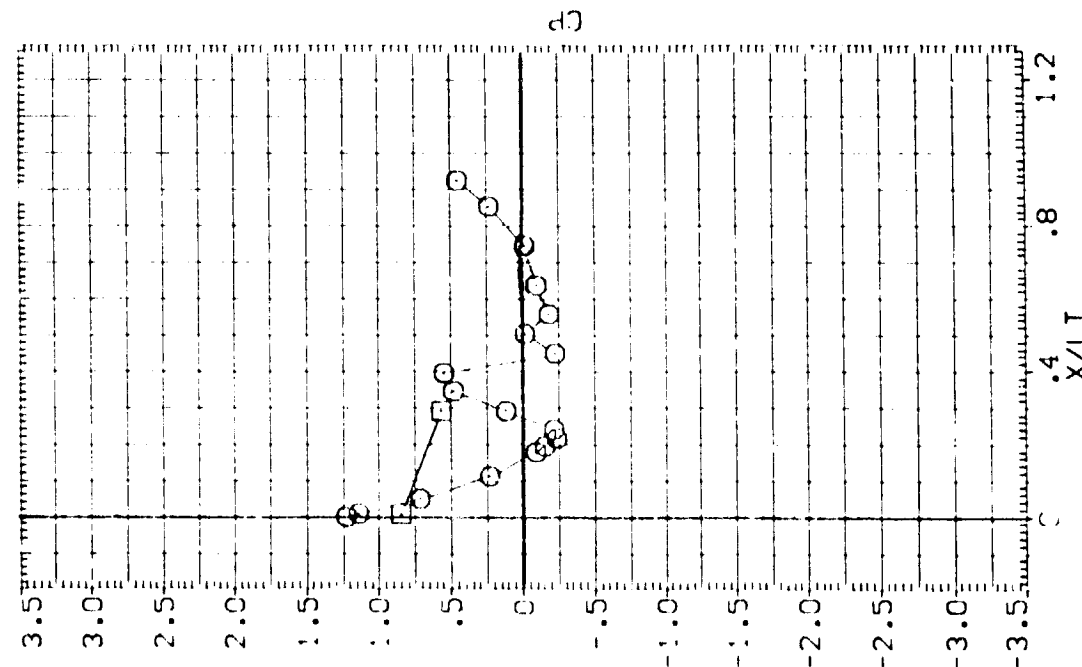
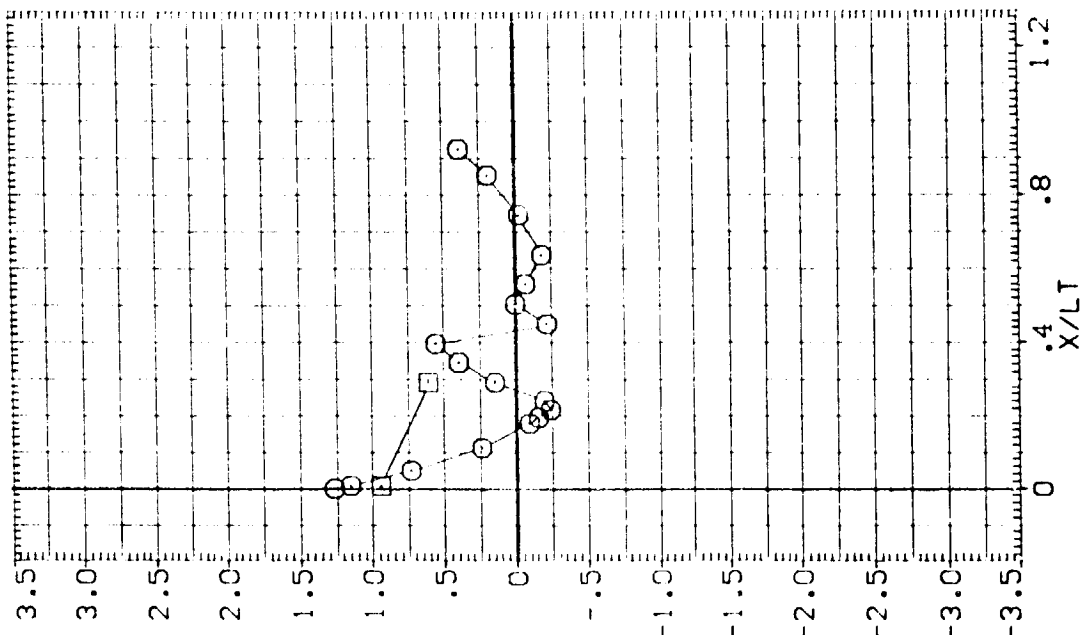
SYMBOL  
( )

PHI 180.000  
270.000

BETA0 -7.950  
-3.950

ALPHA0 -4.230

PARAMETRIC VALUES  
MACH 1.250  
RUDDER .000  
ELEVON .000  
SPOBRK .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



ARC11-716 1A14 01+T12+S12N25+AT10 EXTERNAL TANK (RB1T33)

SYMBOL

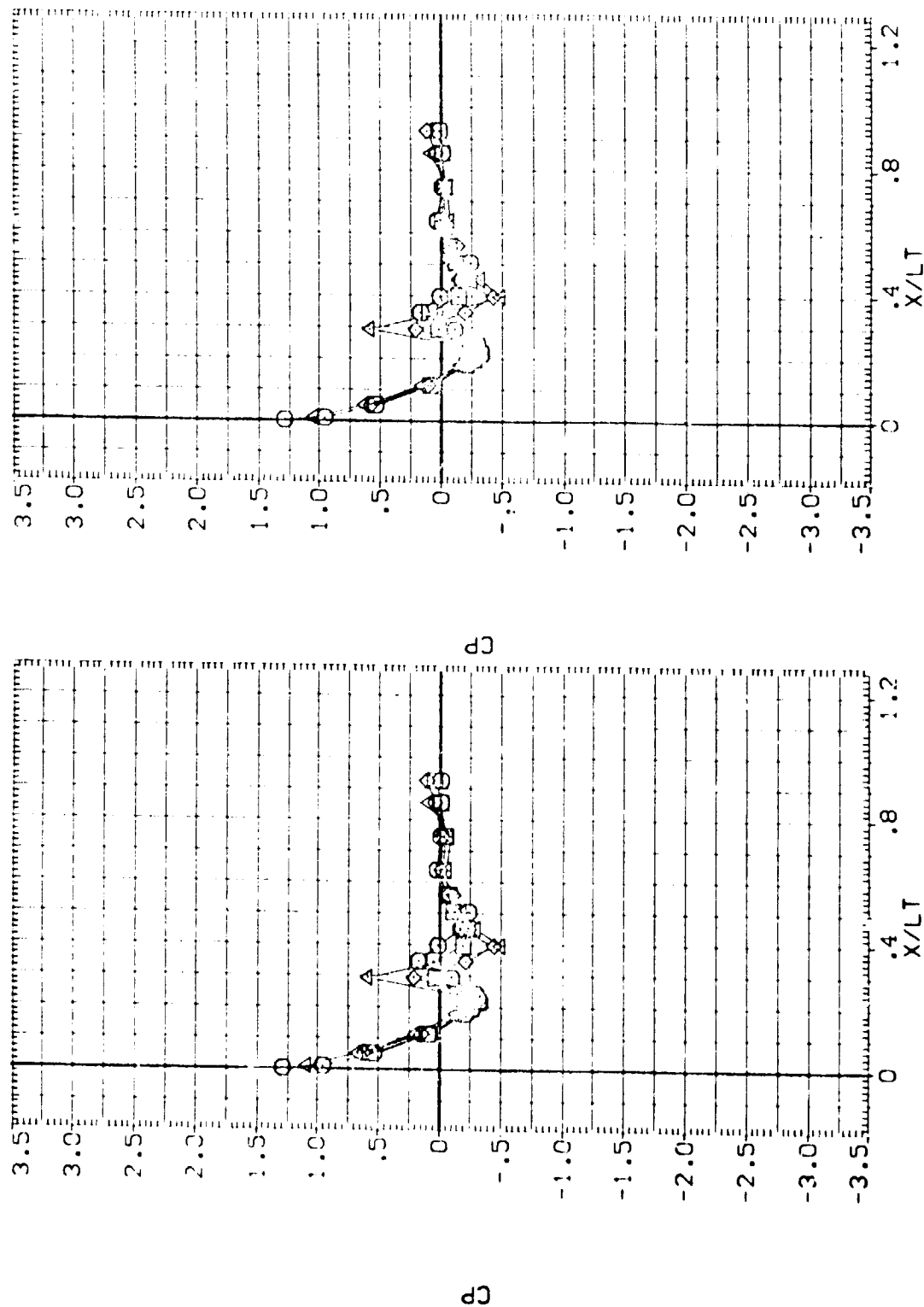
PHI  
0  
30.000  
60.000  
90.000

BETA0  
-2.020  
-1.010

ALPHA0  
-4.150

MACH  
RUDDER

PARAMETRIC VALUES  
1.250  
.000  
ELEVON  
SPDRK  
.000  
.000

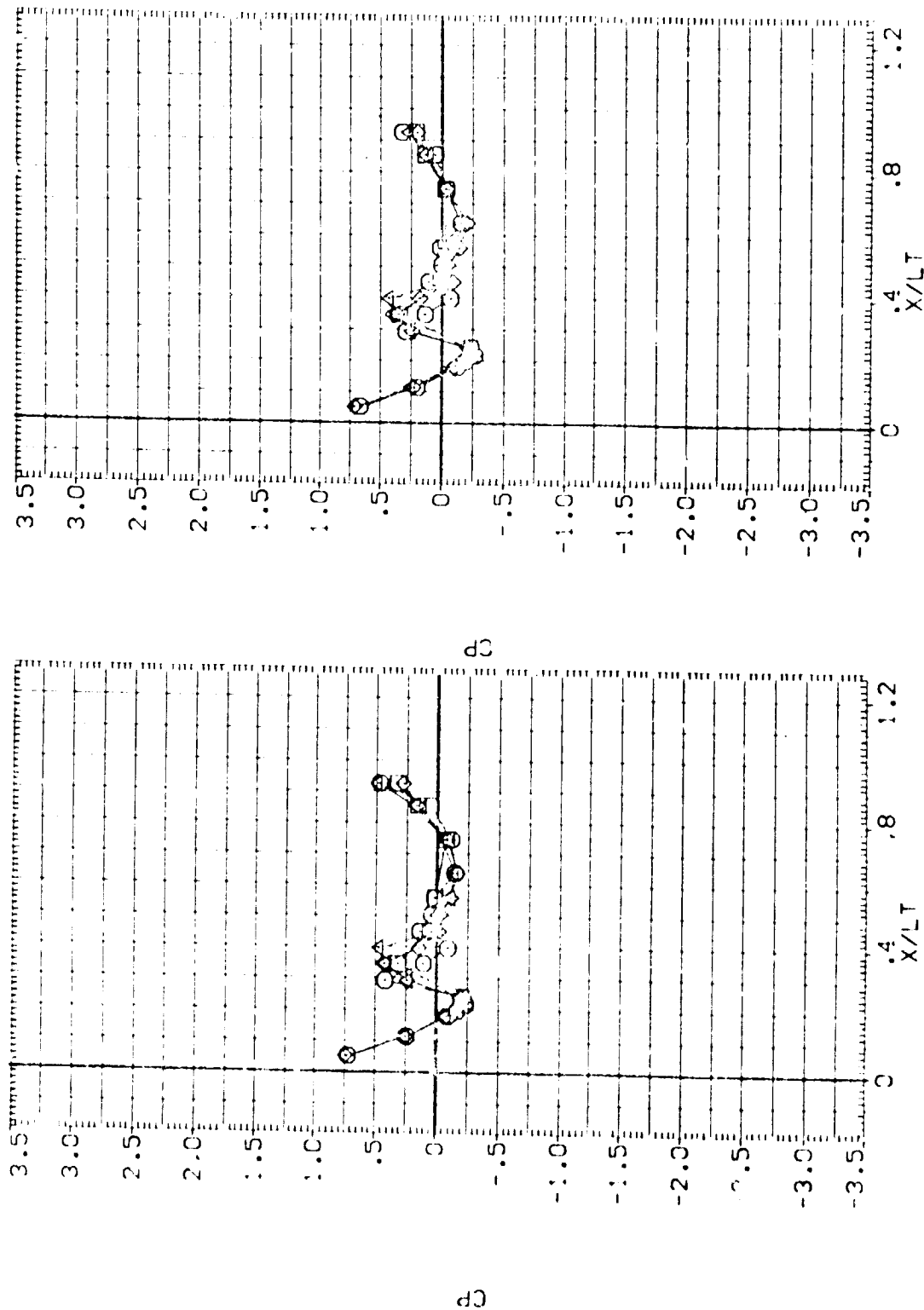


LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 EXTERNAL TANK (RB1T33)

PARAMETRIC VALUES  
 MAC+ 1.250 ELEVON .000  
 RUDDER .000 SPOILER .000

SYMBOL PH1 BETAO ALPHAC  
 120.000 -2.027C -4.15C  
 135.000 -1.01C  
 150.000  
 165.000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 JA14 01+T12+S12N25+AT10 EXTERNAL TANK (RB1T33)

SYMBOL

116.000  
270.000

BETAS  
-2.020  
-0.010

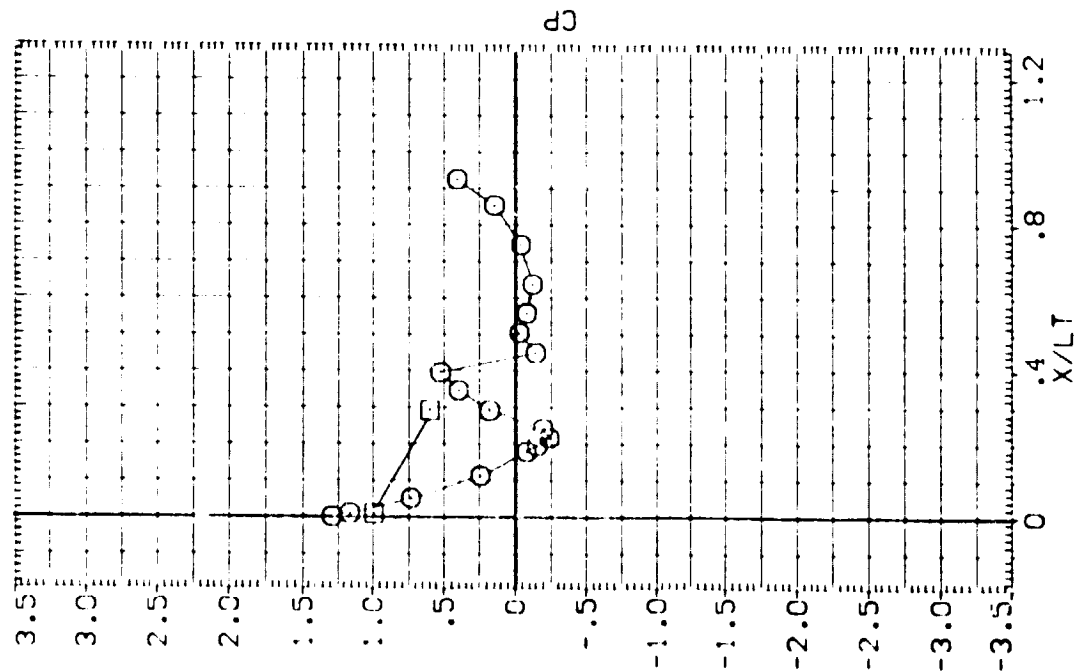
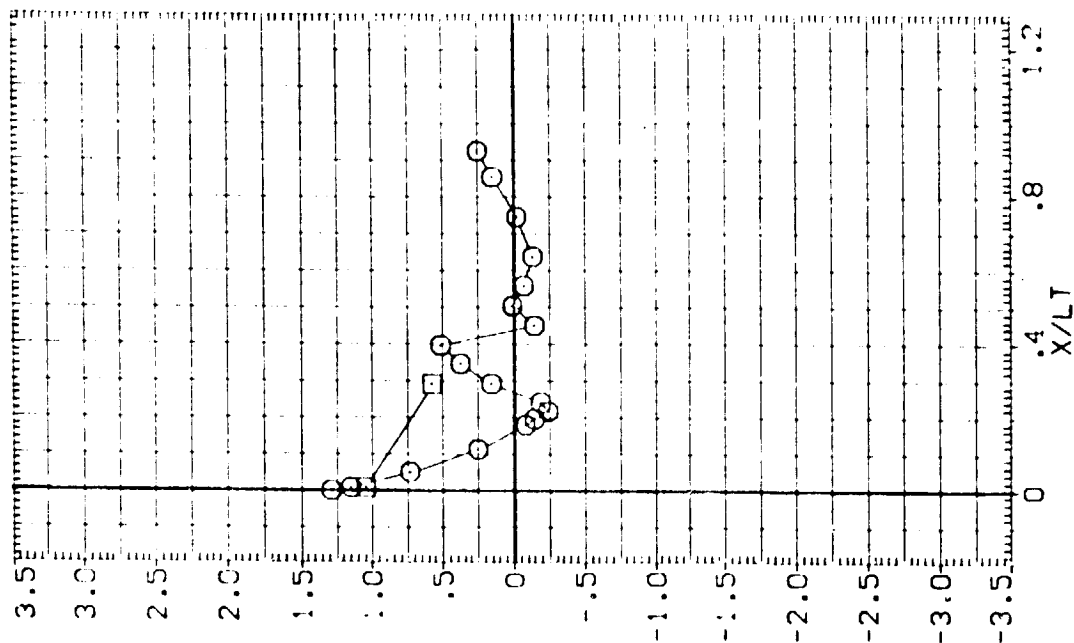
ALPHAS  
-4.150

MACH  
RUDDER

1.250  
.000

ELEVON  
SPOBRK

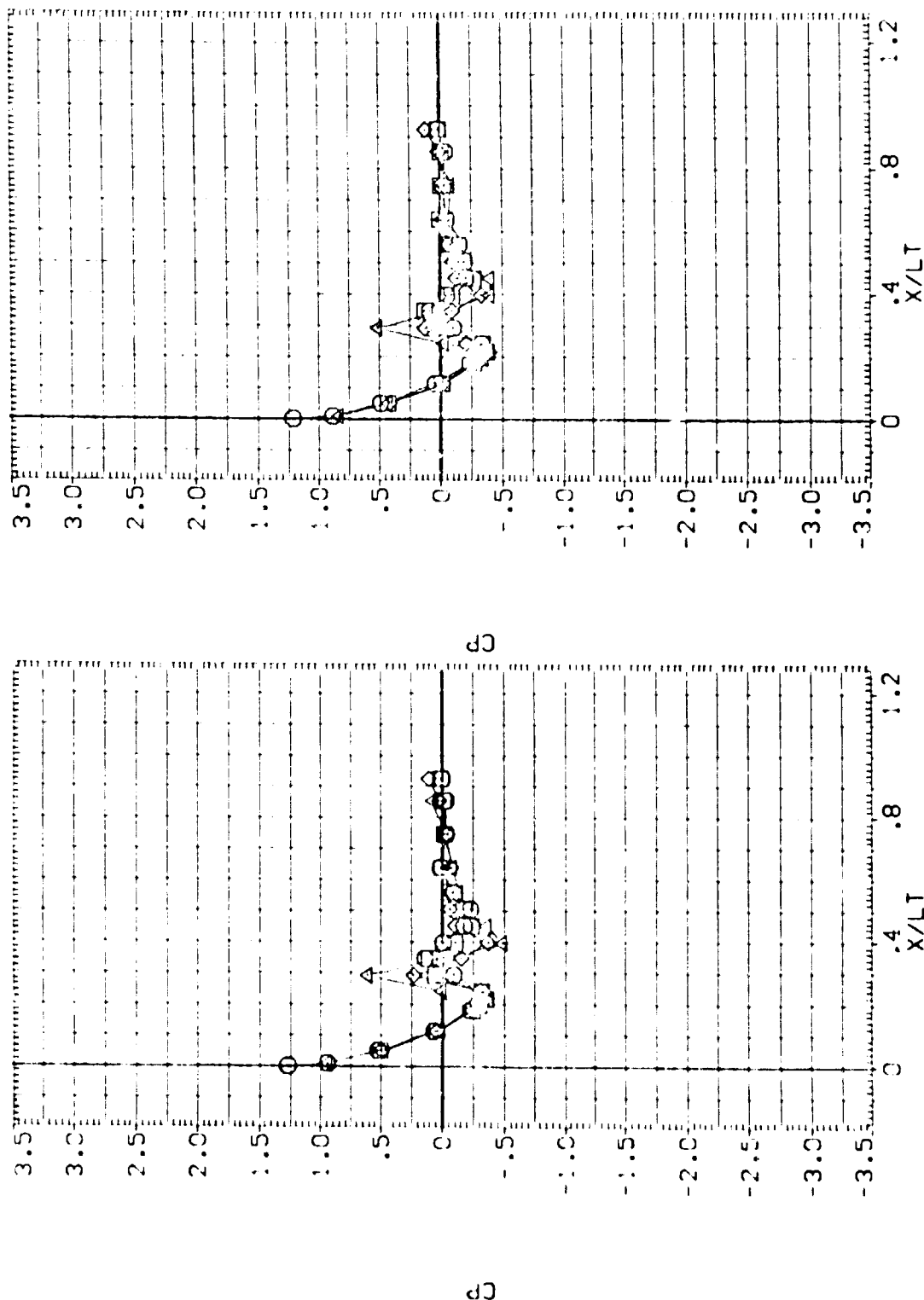
.000  
.000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+1.2+S:2N25+AT10 EXTERNAL TANK (RB1T33)

SYMBOL	PHI	BETAS	ALPHAS	MACH	PARAMETRIC VALUES
( )	.000	4.090	-4.200	RUDDER	1.250 ELEVON .000
◇	30.000	8.080			.000 SPOSRN .000
△	60.000				
▽	90.000				



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

APC11-716 1A14 01+T12+S12N25+AT10 EXTERNAL TANK (RB1133)

SYMBOL

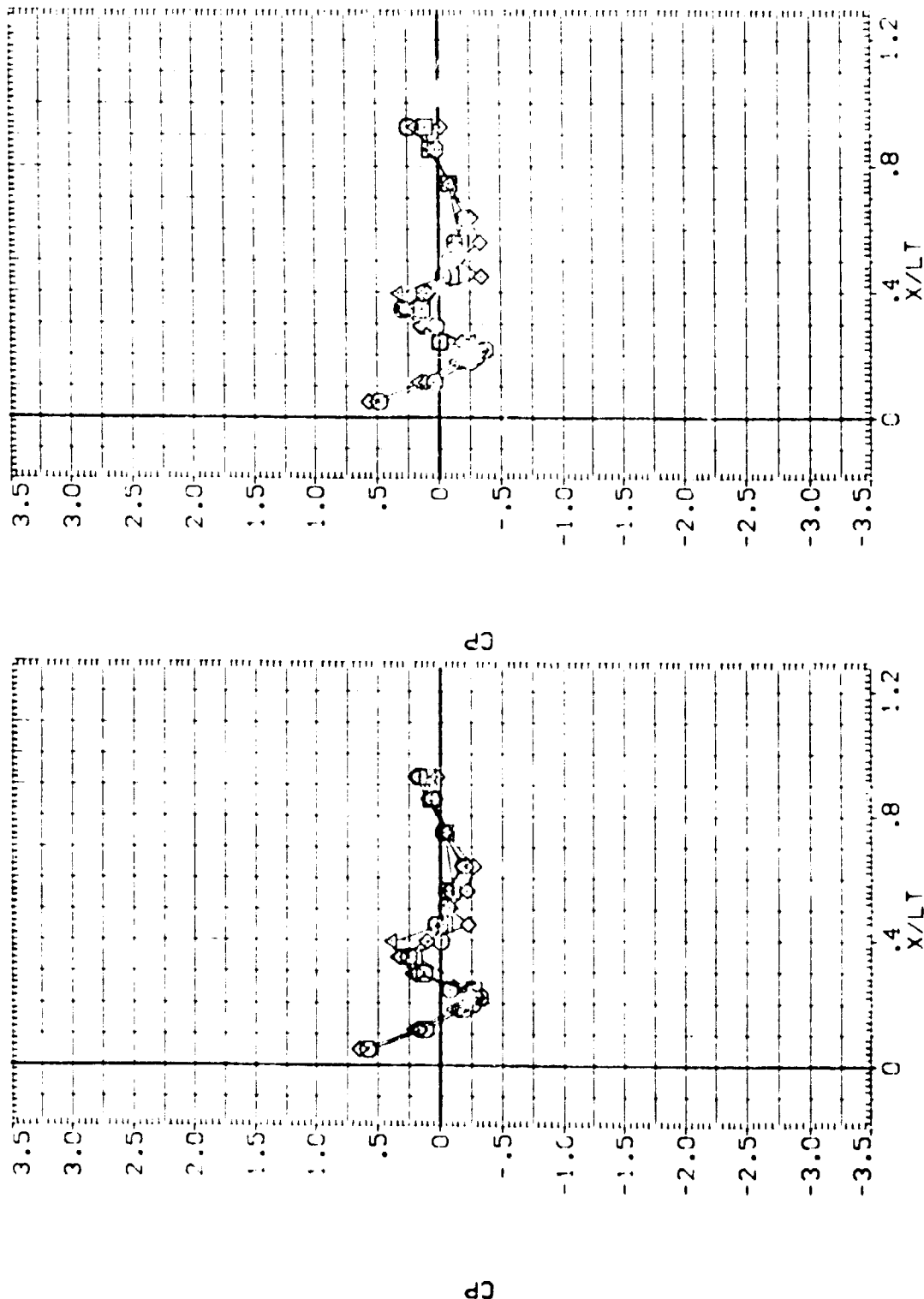
PHI  
120.000  
135.000  
150.000  
165.000

BETAC  
4.090  
8.080

ALPHA0  
-4.200

PARAMETRIC VALUES

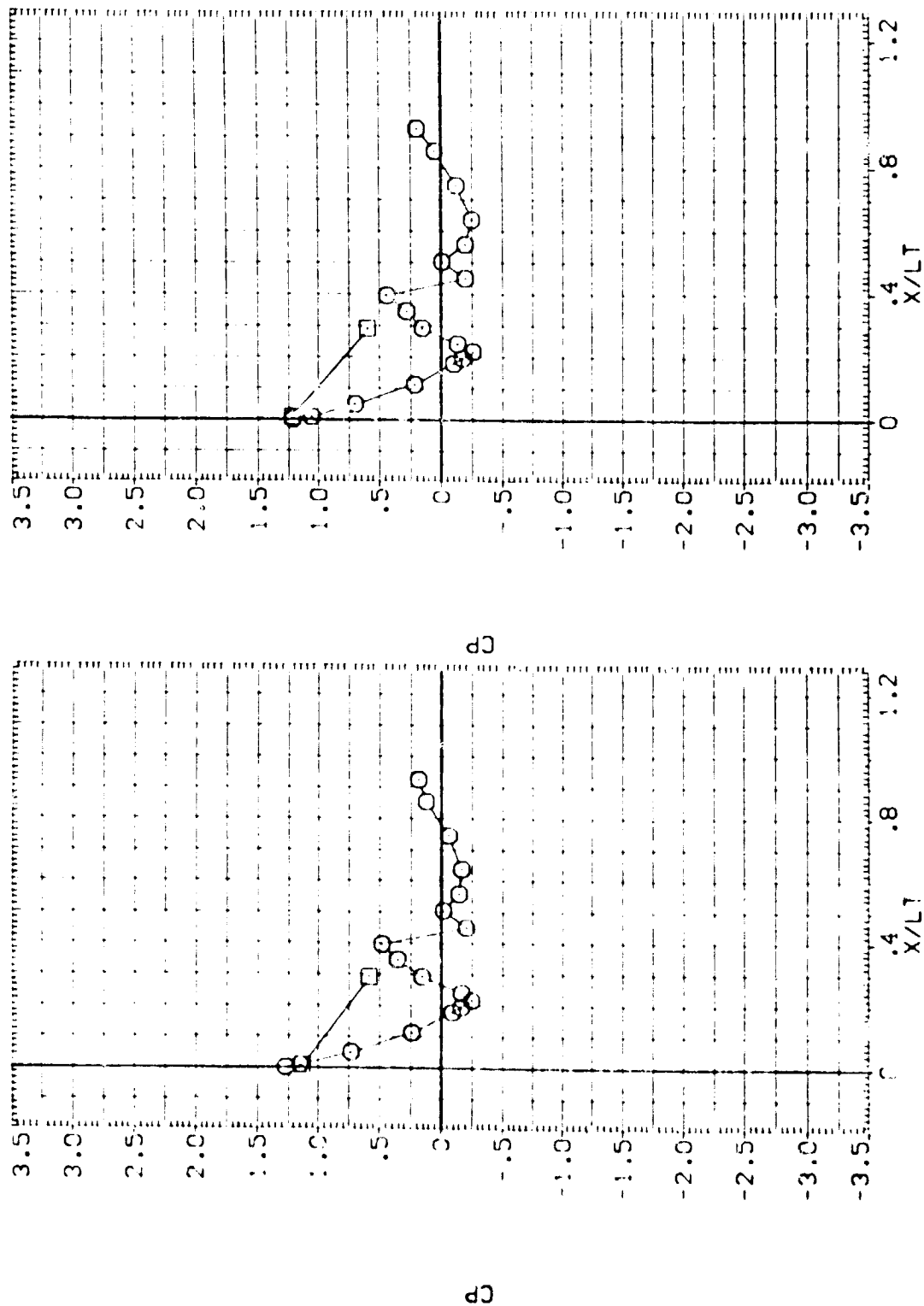
MACH 1.250 ELEVON .000  
RUDDER .000 SPOILER .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+T12+S12A25+AT10 EXTERNAL TANK (RB1T33)

SIMBOL	PARAM	BETAS	ALPHAS	PARAMETRIC VALUES	
180.000	180.000	4.090	-4.090	MACH	1.250
270.000	270.000	8.080	-8.080	RUDER	.000
				ELEVON	.000
				SP03PM	.000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

SYMBOL

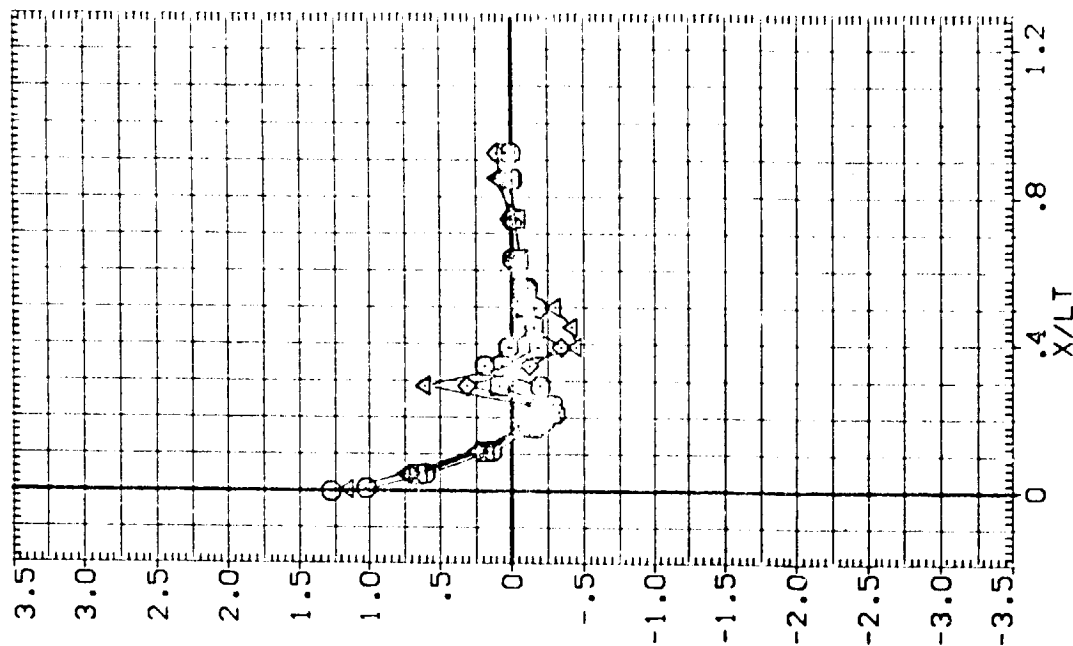
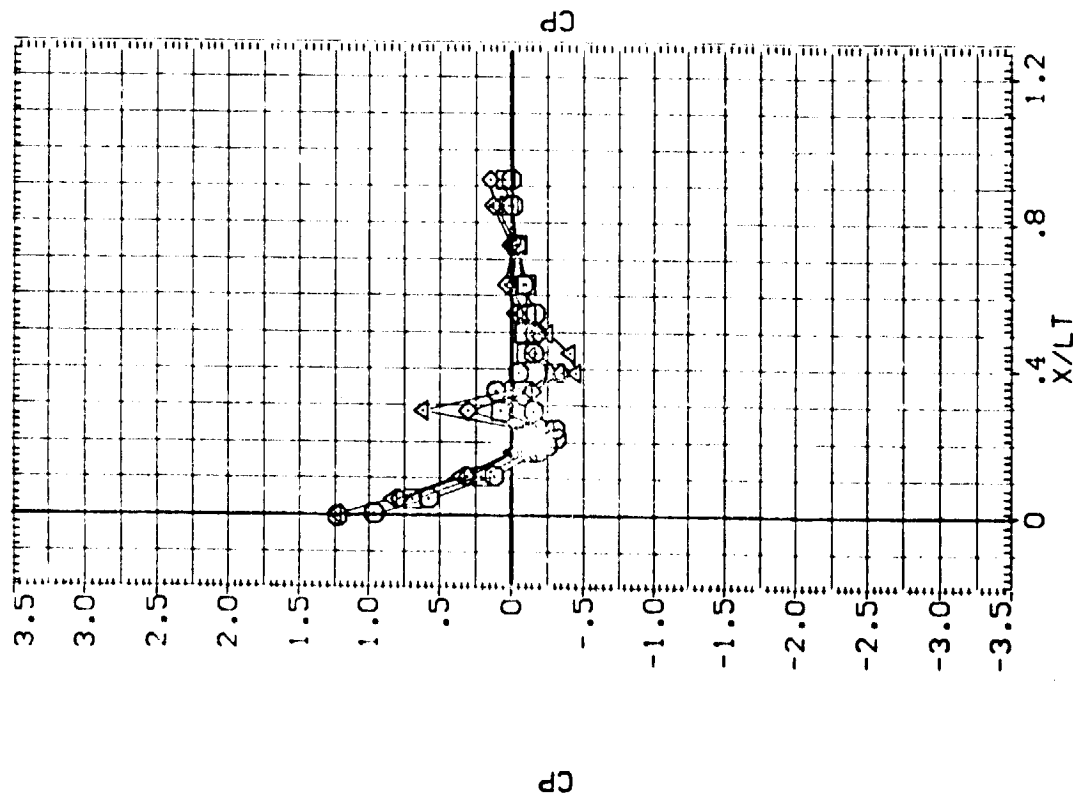
○ □ ◇ △

PHI .000  
30.000  
60.000  
90.000

BETA0 -9.420  
-4.140

ALPHA0 -7.730

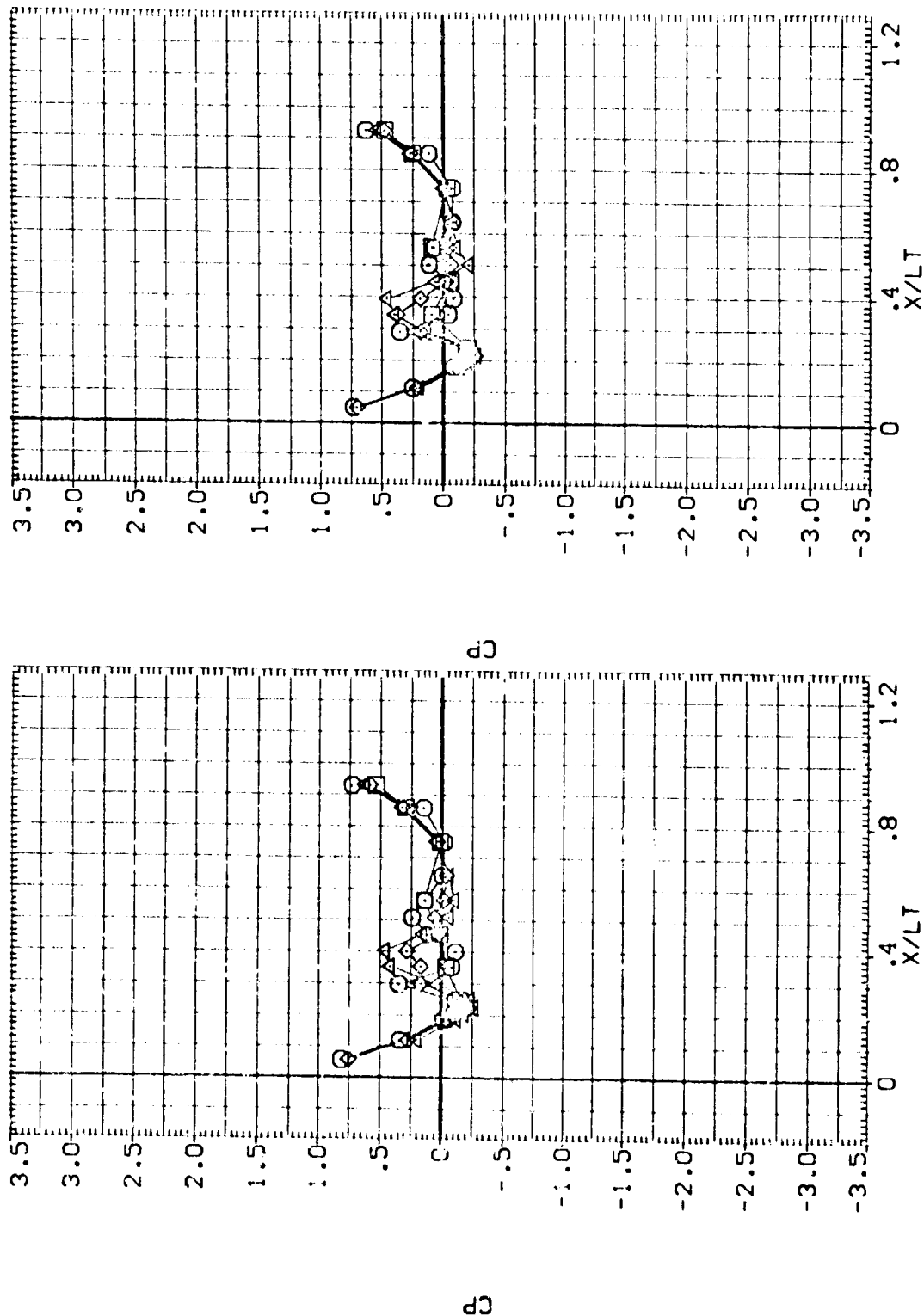
PARAMETRIC VALUES  
MACH 1.250  
ELEVON .000  
RUDDER .000  
SPOILER .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 EXTERNAL TANK (RB1T33)

SYMBOL	PHI	BETAG	ALPHA0	MACH	PARAMETRIC VALUES
○	120.000	-8.420	-7.30	RUDDER	1.250
□	135.000	-4.140			.000
◇	150.000				SPDRK
△	165.000				.000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



ARC11-716 1A14 01+T12+S12N25+AT10 EXTERNAL TANK (RB1T33)

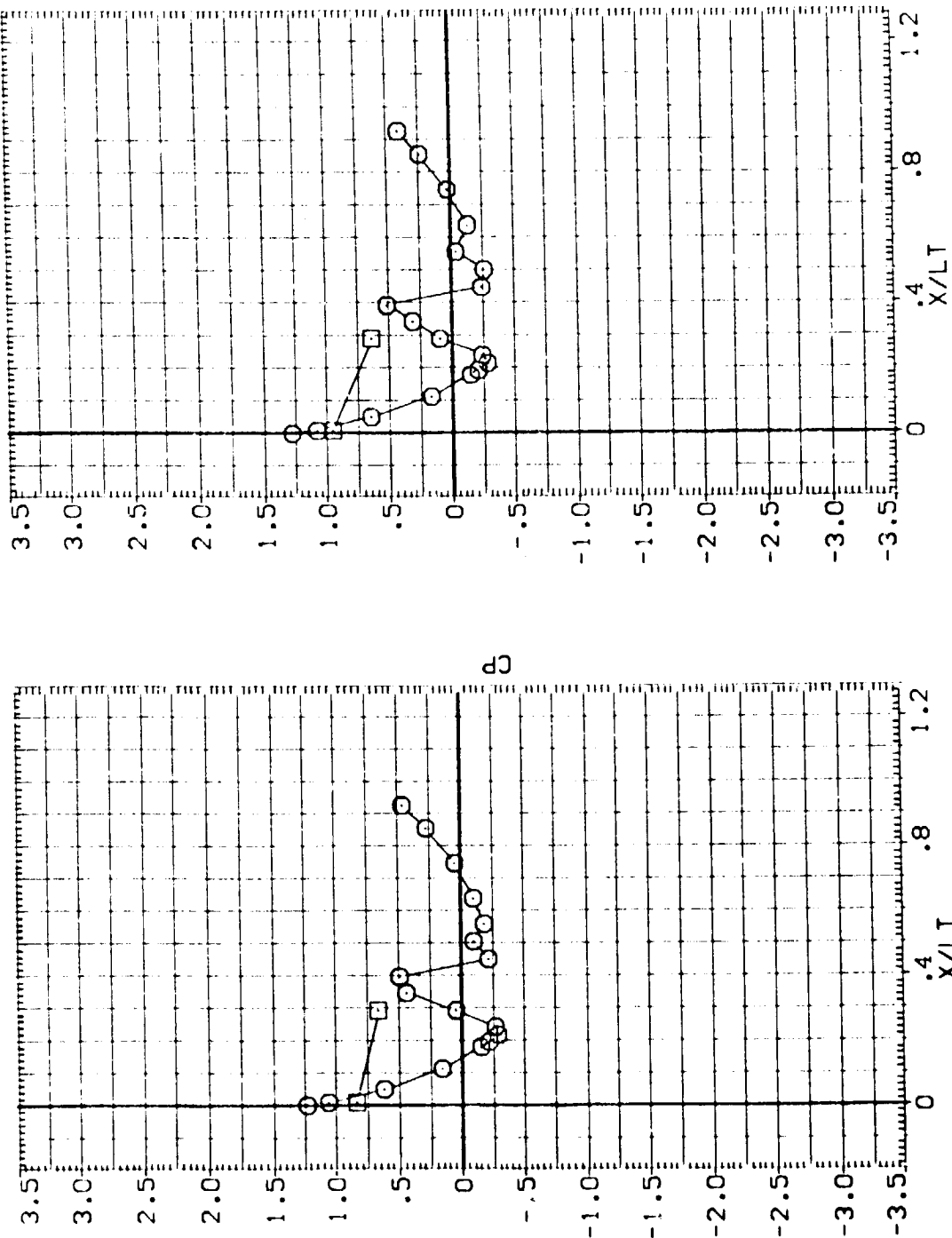
SYMBOL  
○  
□

PHI 180.000  
270.000

BETA0 -8.420  
-4.140

ALPHA0 -7.730

PARAMETRIC VALUES  
MACH 1.250  
RUDDER .000  
ELEVON .000  
SPDRK .030



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

# ARC11-716 1A14 01+T12+S12N25+AT10 EXTERNAL TANK (RB1T33)

SYMBOL

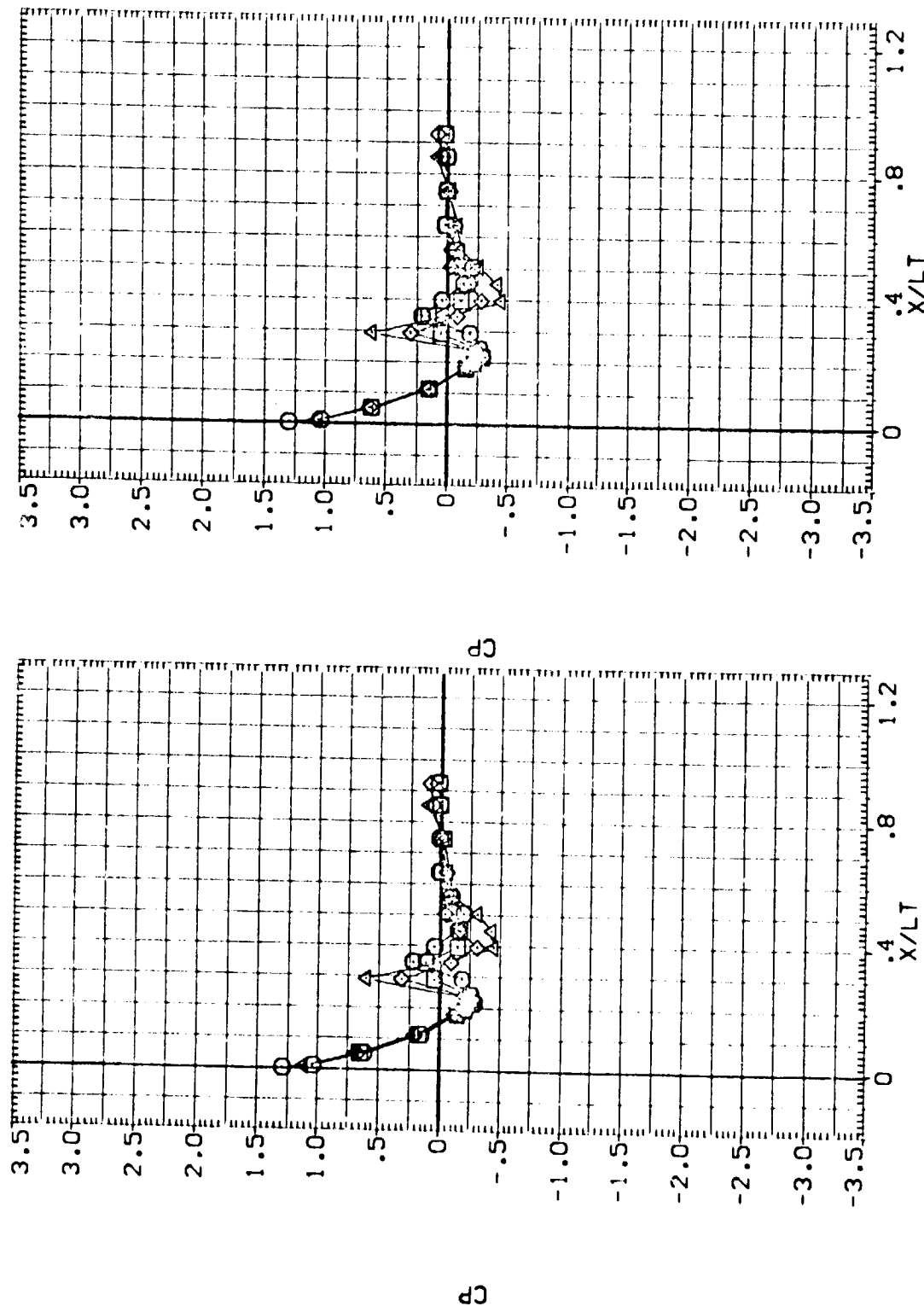
PHI  
 .000  
 30.000  
 60.000  
 90.000

BETA0  
 -2.080  
 .030

ALPHA0  
 - 700

MACH  
 RUDDER

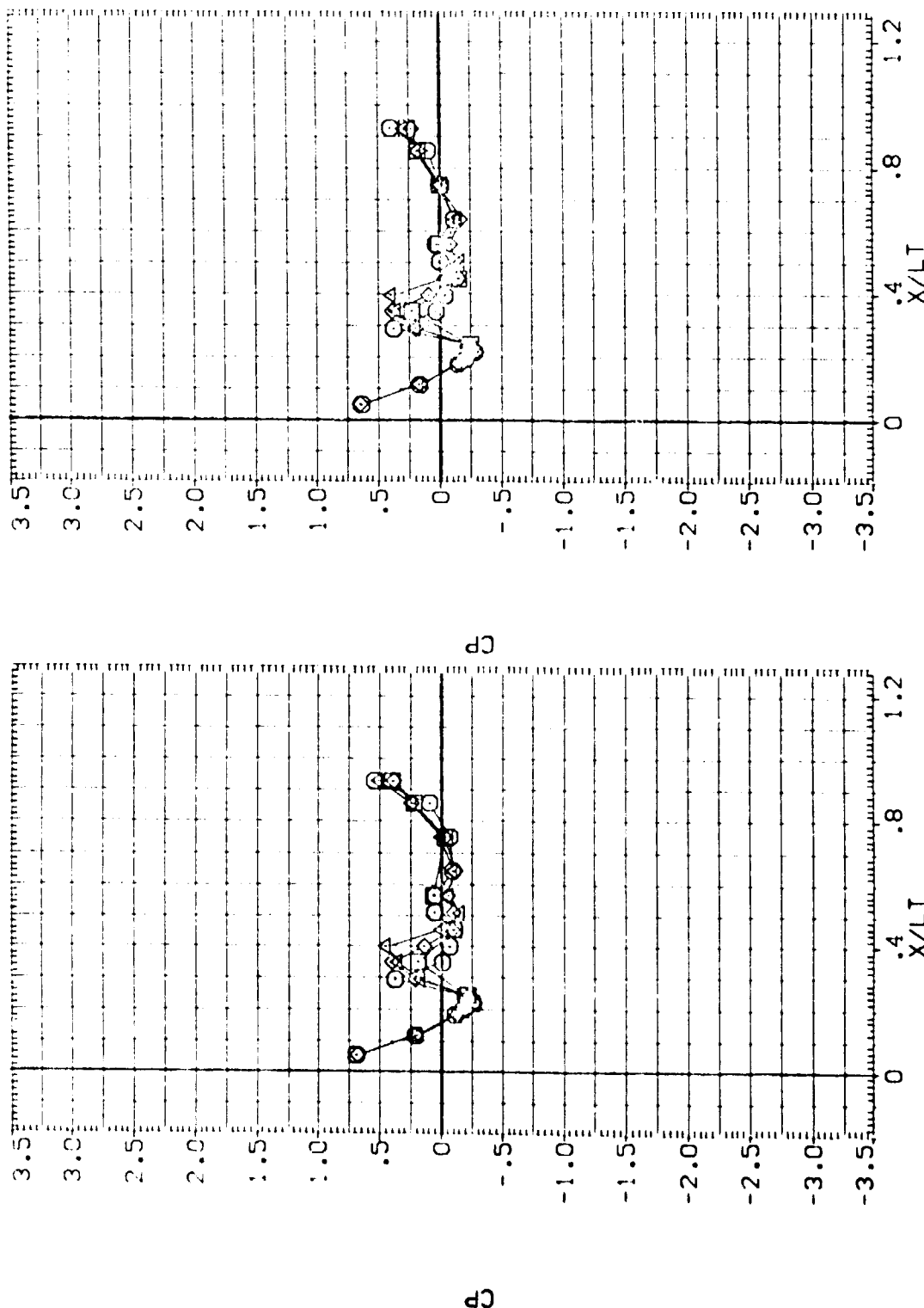
PARAMETRIC VALUES  
 1.250  
 .000  
 ELEVON  
 SPOBRK  
 .000  
 .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 EXTERNAL TANK (RB1T33)

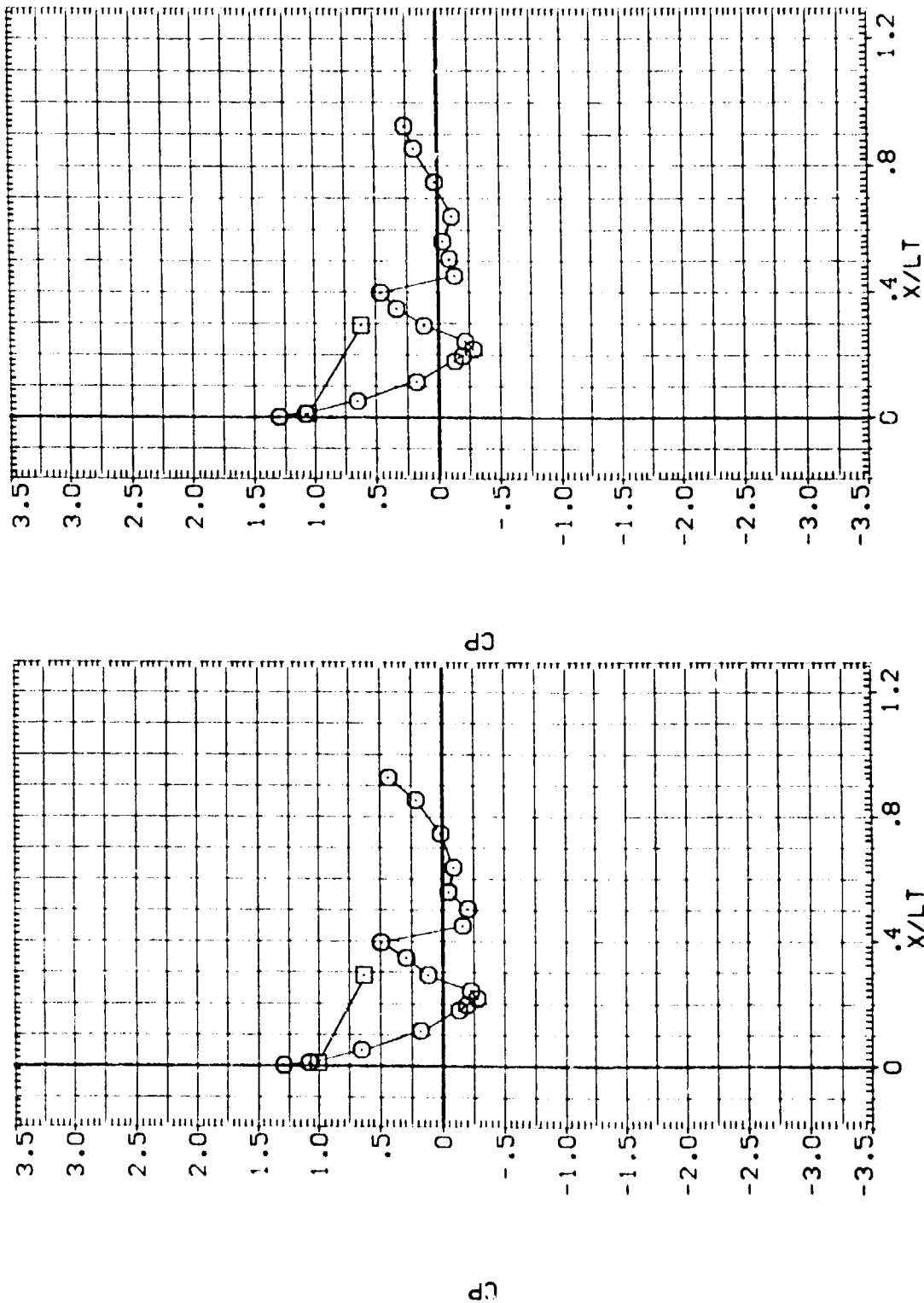
SYMBOL	PHI	BETA	ALPHA	PARAMETRIC VALUES	
○	120.000	-2.080	-7.00	MACH	1.250
□	135.000	.000		ELEVON	.000
◇	150.000			RUDDER	.000
△	165.000			SPC80X	.000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 EXTERNAL TANK (RB1T33)

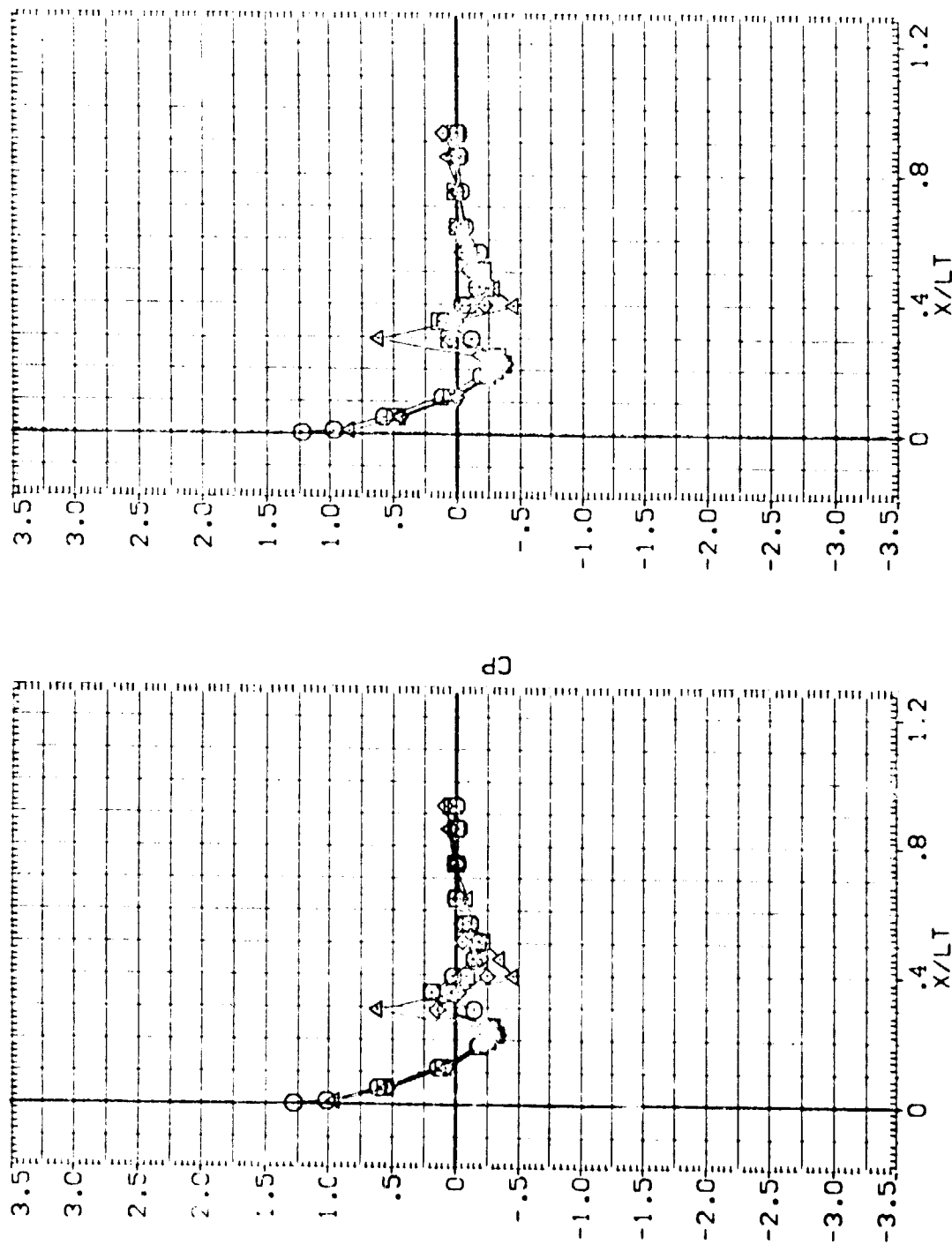
SYMBOL	PHI	BETAS	ALPHA	MACH	ELEVON	SPDRK
10	180.000	-2.080	-700	1.250	.000	.000
	270.000	.030		.000		



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

PARAMETRIC VALUES  
MACH 1.250 ELEVATION .000  
RUDDER .000 SPEED .000

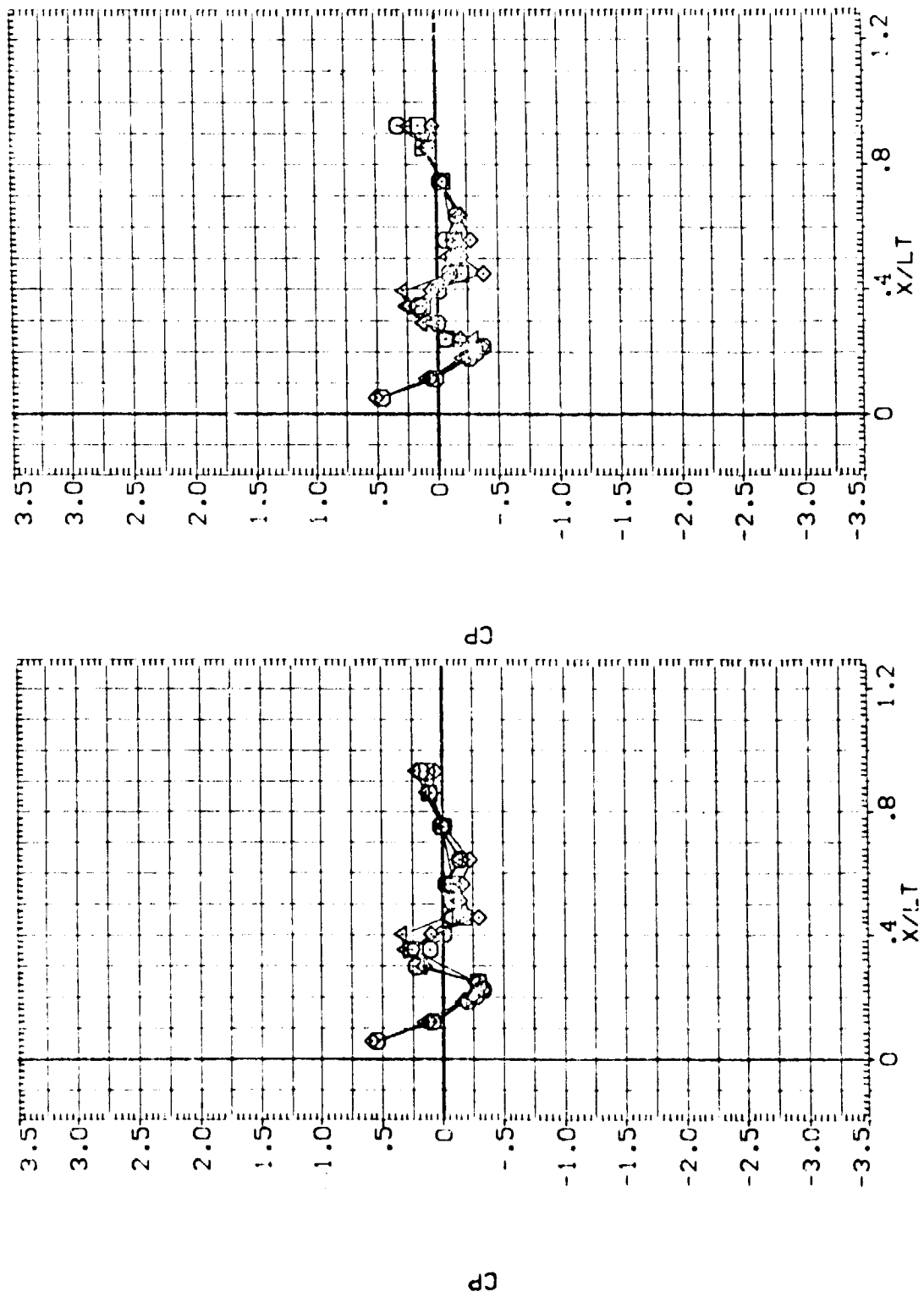
SYMBOL P41 BETA0 ALPHA0  
O .000 4.270 -7.10  
X 30.000 8.130  
Y 60.000  
Z 90.000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC:-7:6 IA14 01+T12+S12N25+AT10 EXTERNAL TANK (RB1133)

SYMBOL	PHI	BETAC	ALPHA0	MACH	PARAMETRIC VALUES
□	120.000	4.270	-7.10	RUJTER	1.250
□	135.000	8.130			ELEVON
◇	150.000				SPDRK
△	165.000				



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

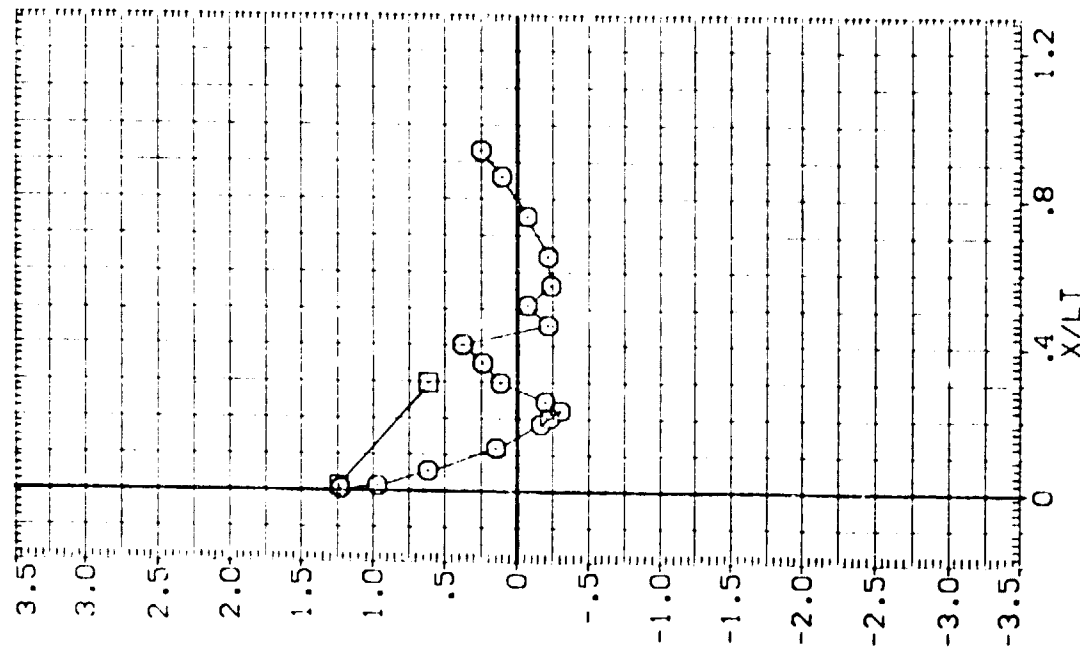
SYMBOL

PHI  
180.000  
270.000

BETAG  
4.270  
8.130

ALPHAG  
-.710

PARAMETRIC VALUES  
MACH 1.250 ELEVON .000  
RUDDER .000 SPOILER .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC:1-716 1A14 01+T12+S12N25+AT10 EXTERNAL TANK (RB1T33)

SYMBOL  
0 1 2 3 4

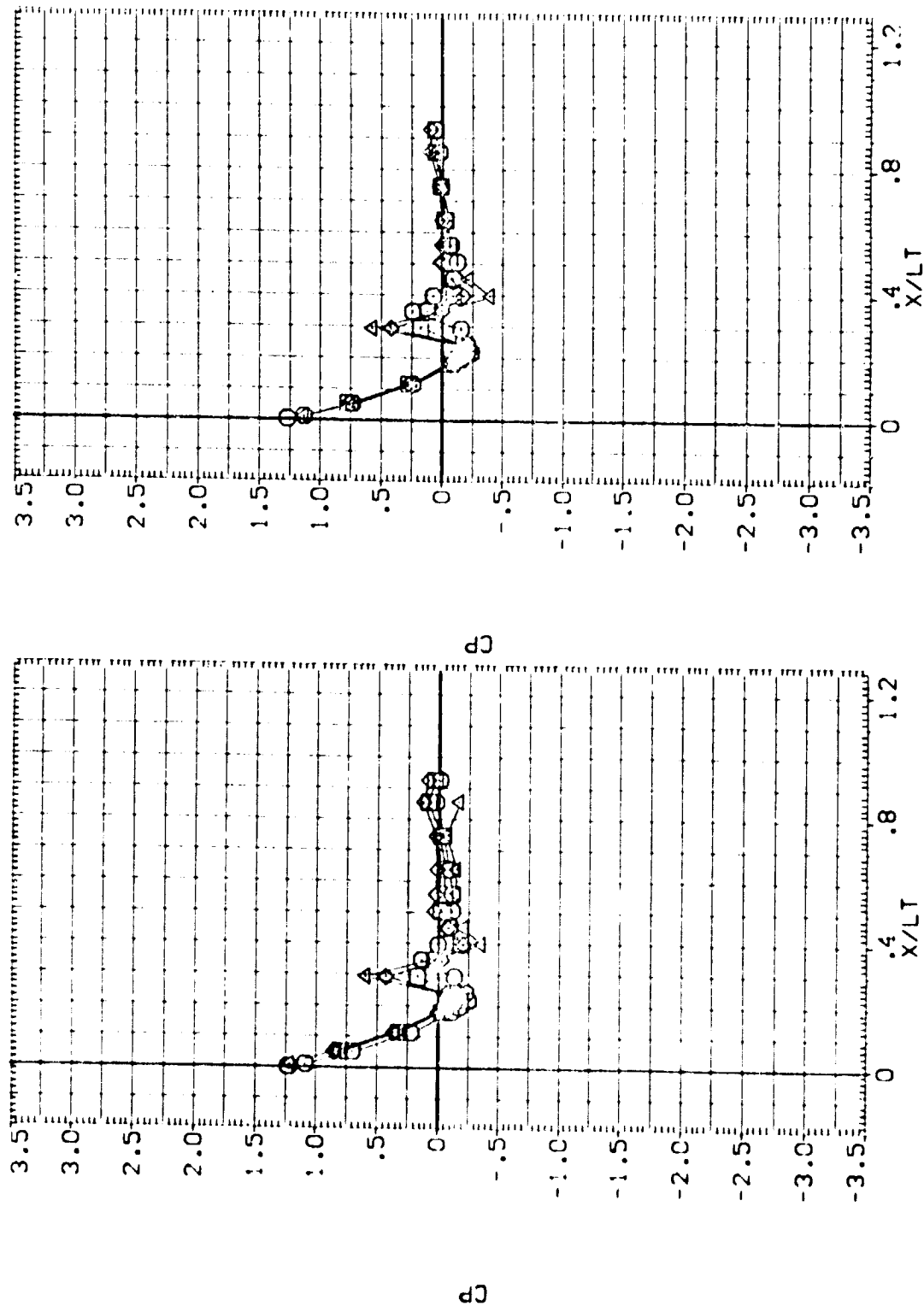
PHI .000  
30.000  
60.000  
90.000

BETAC  
-8.090  
-3.970

ALPHA3  
4.200

MACH  
RUDDER

PARAMETRIC VALUES  
1.250 ELEVON  
.000 SPOILER  
.000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

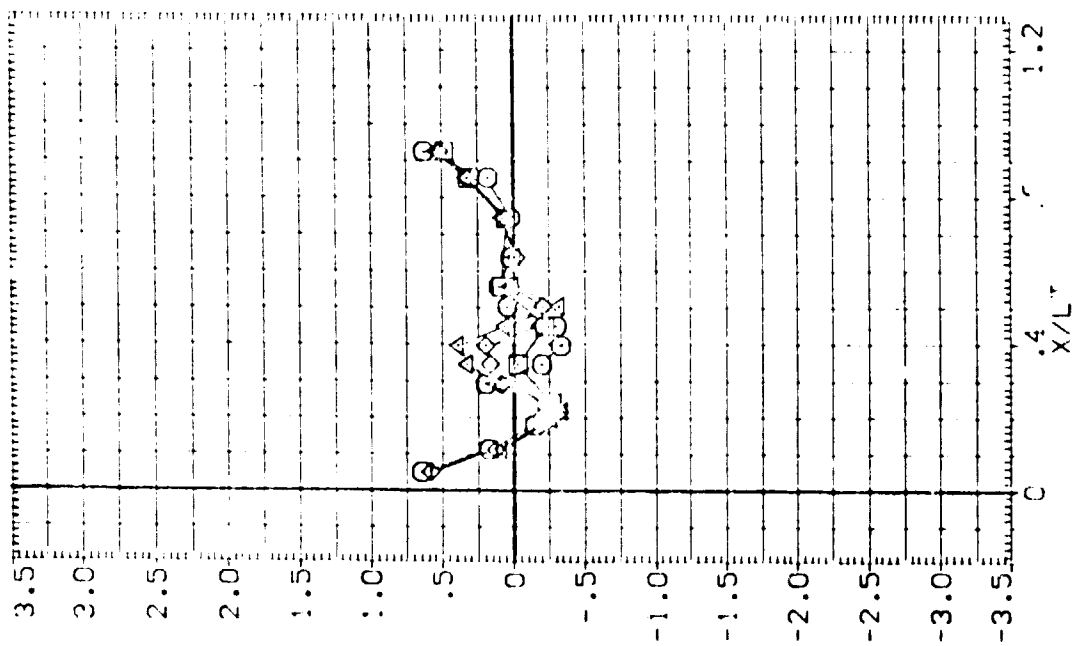
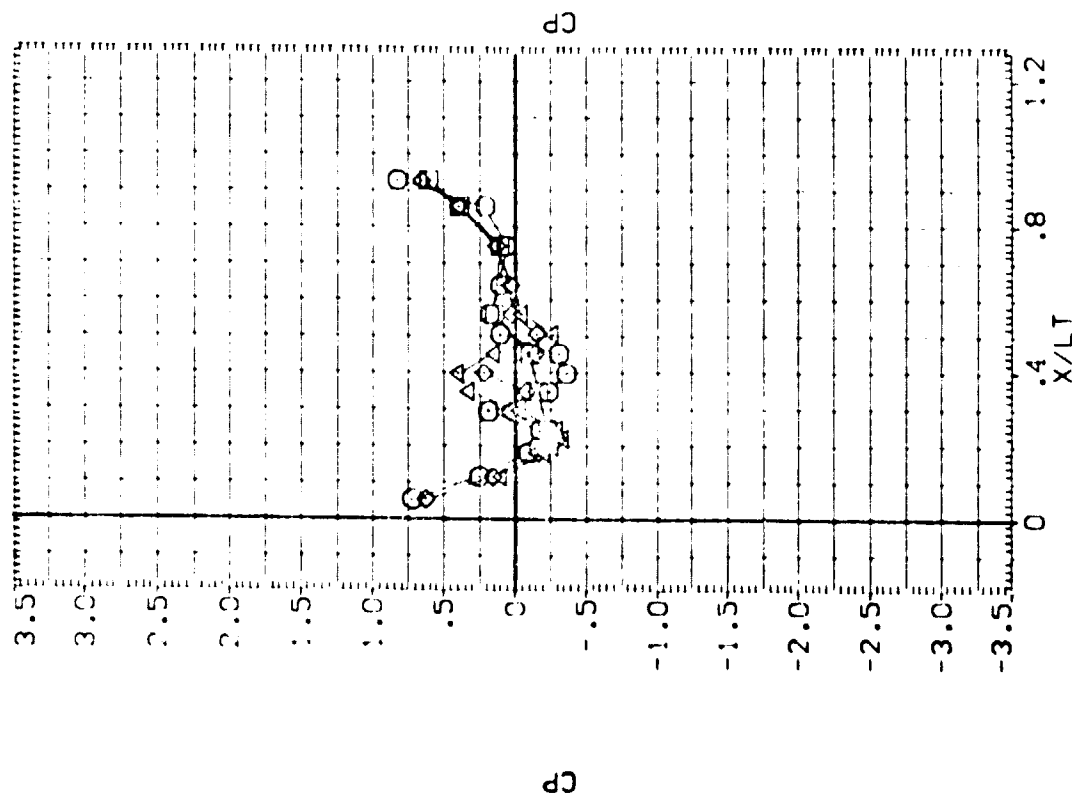


ARC11-716 1A14 01+T12+S12N25+AT10 EXTERNAL TANK (RB1T33)

S+H2O

PHI BETA0 ALPHAO  
 120.000 -8.090 4.200  
 135.000 -3.970  
 150.000  
 165.000

PARAMETRIC VALUES  
 MACH 1.250 ELEVCH .000  
 RUDDER .000 SPEEDRK .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC:1-7:16 1A14 01+1:2+S12N25+AT10 EXTERNAL TANK (RB1T33)

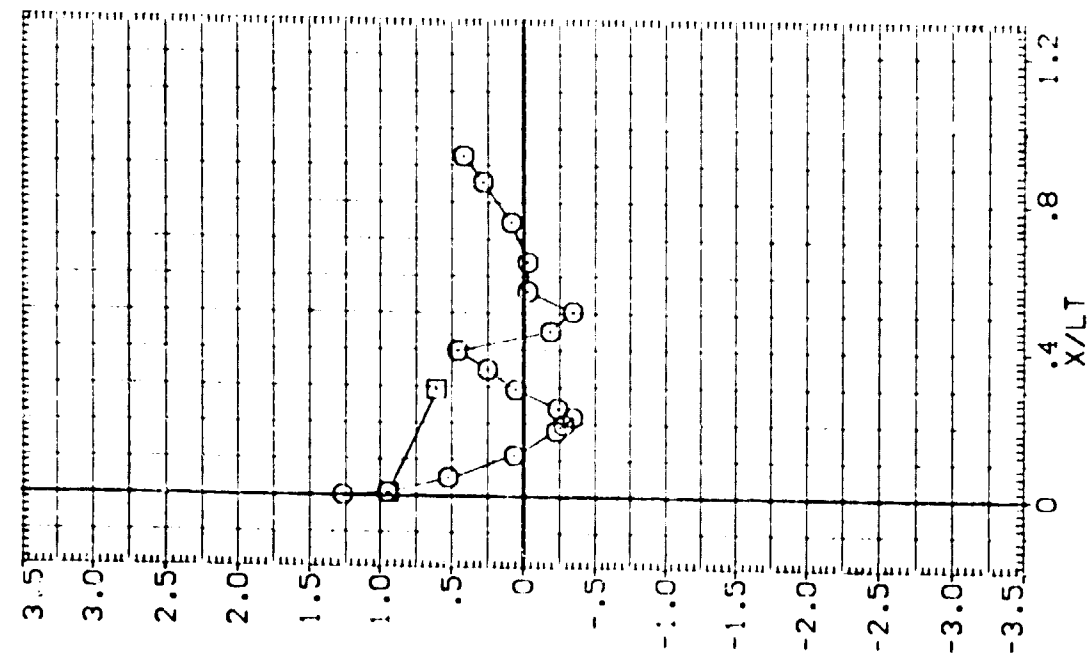
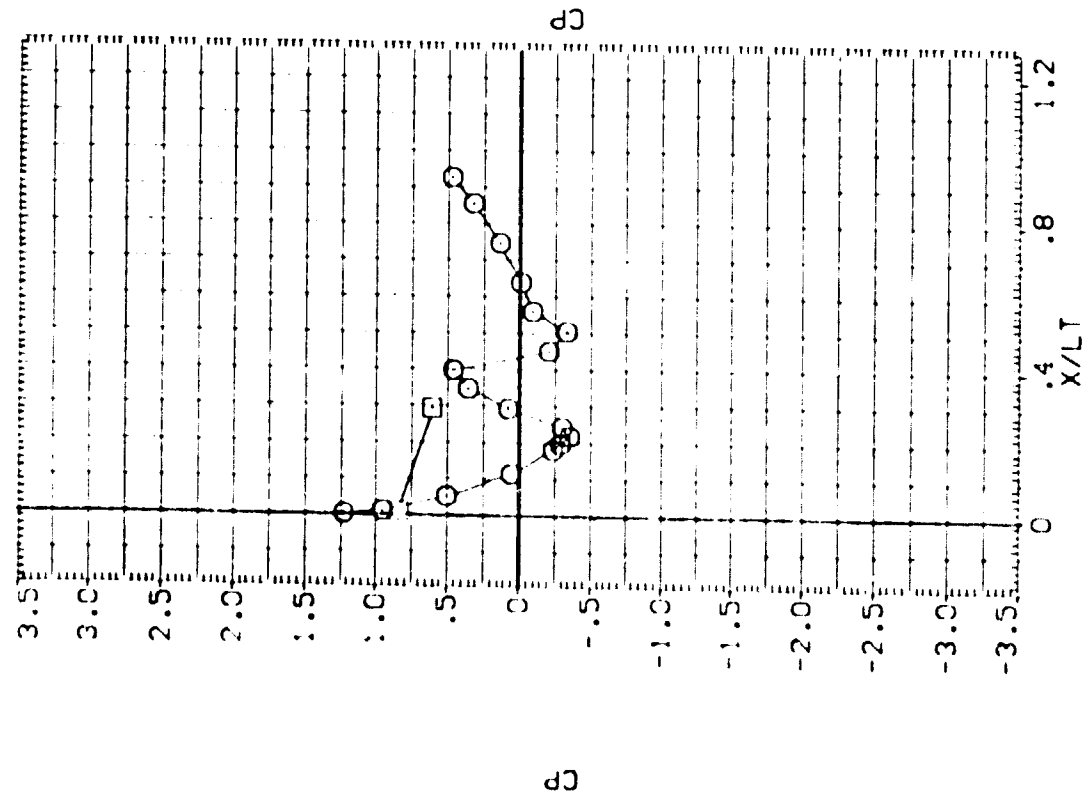
SYMBOL  
 ( )  
 [ ]

PA1 180.000  
 270.000

BETA0 -8.09C  
 -3.97C

ALPHA0 4.200

PARAMETRIC VALUES  
 MACH 1.250  
 RUDDER .000  
 ELEVON .000  
 SP030X .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC:1-716 1A14 01+112+S12N25+AT10 EXTERNAL TANK (RBT133)

SYMBOL

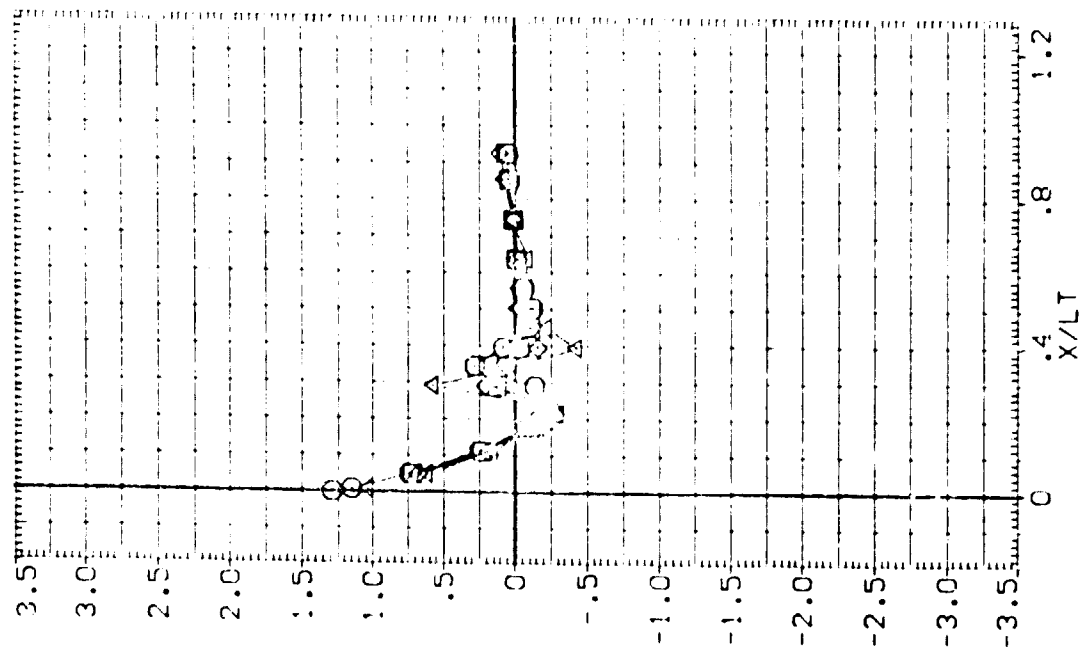
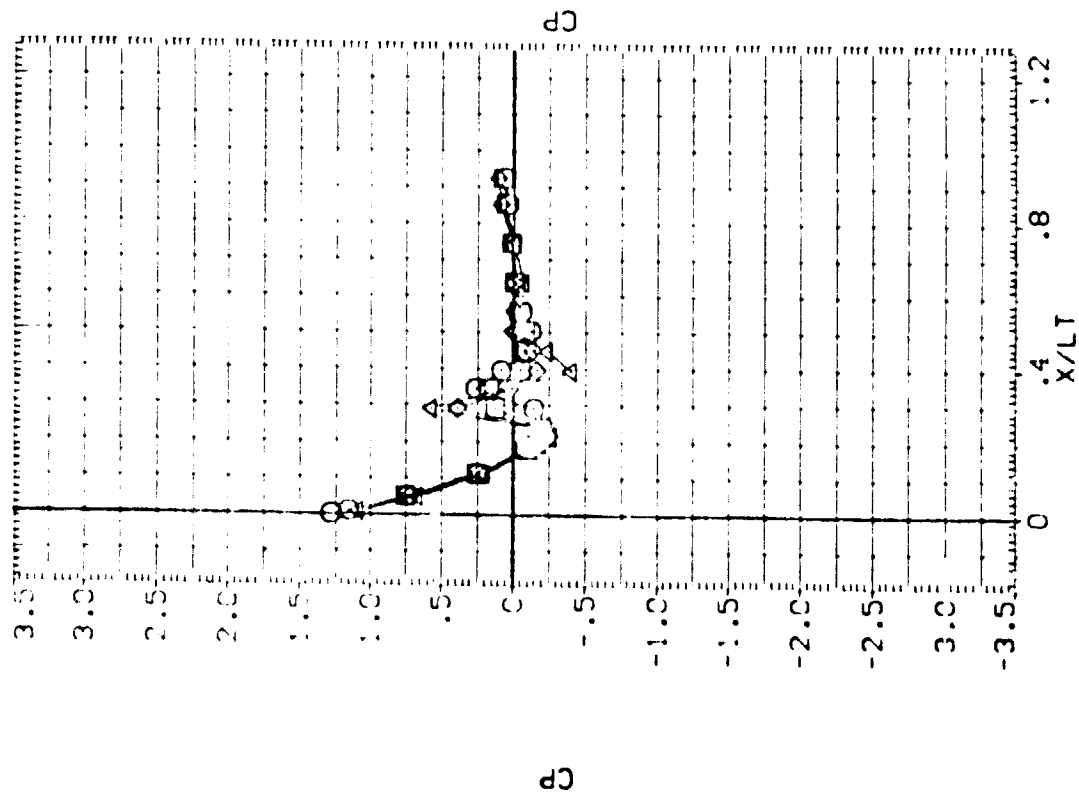
0  
1  
2  
3

BETAC -2.000  
ALPHA0 -1.220

MACH 1.000  
RUDER 1.000  
SPDRK 1.000

PARAMETRIC VALUE

ELEVCH 1.000  
SPDRK 1.000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

# ARC11-716 IA14 01+T12+S12N25+A110 EXTERNAL TANK (RB1T33)

SYMBOL  
○ □ ◇ △

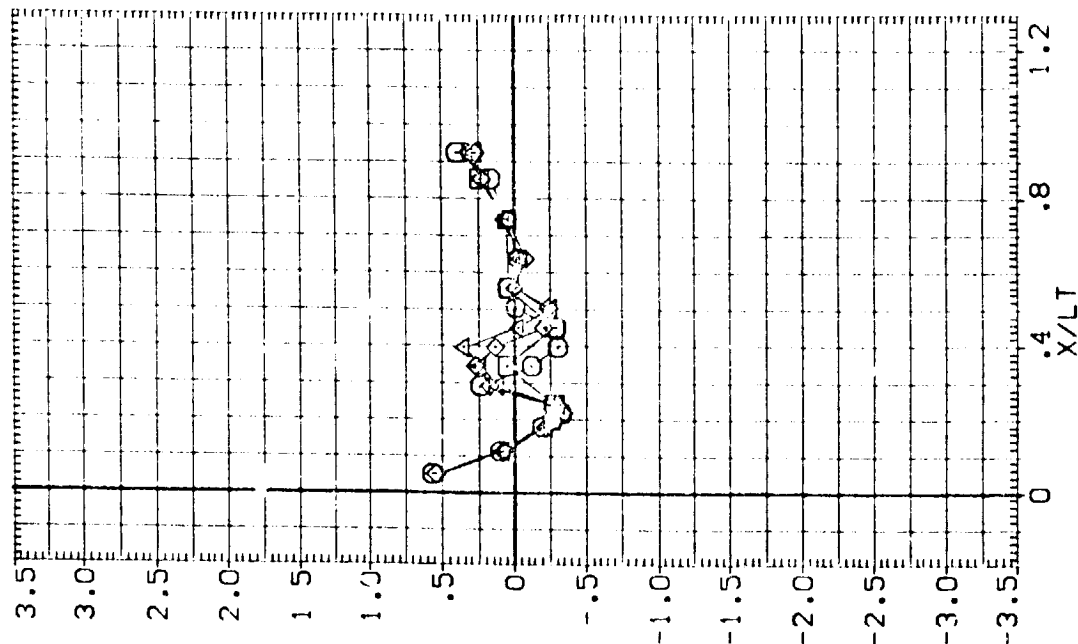
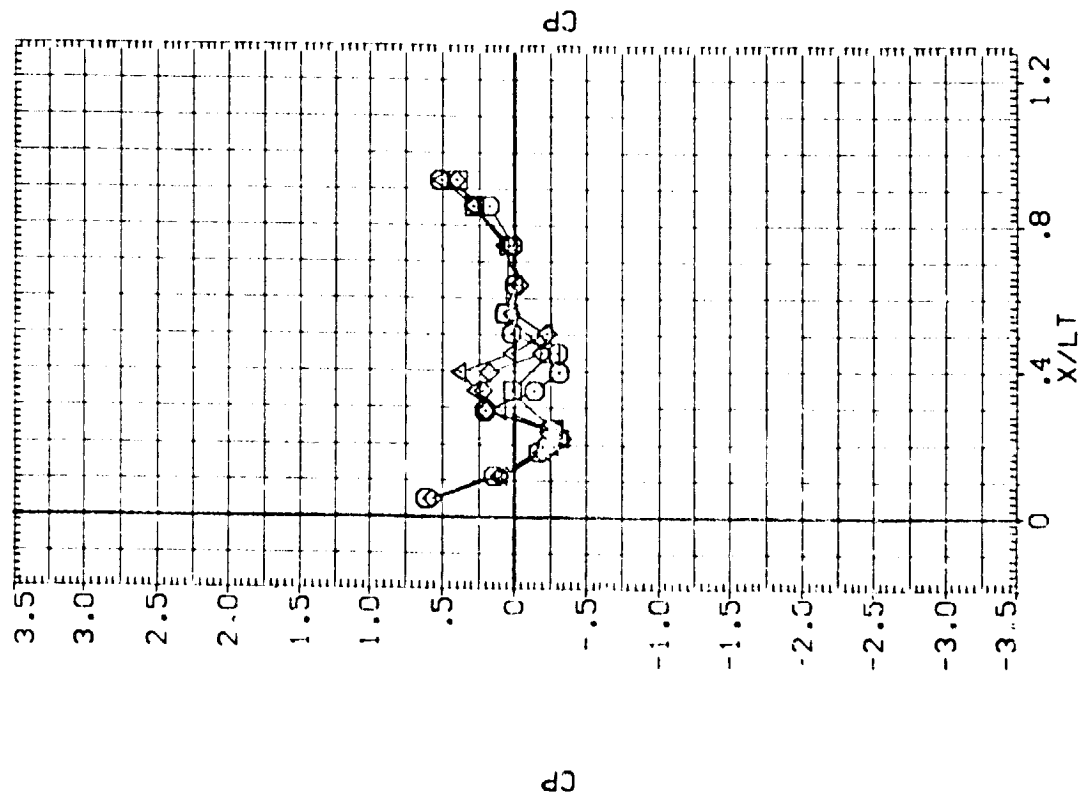
PHI  
120.000  
135.000  
150.000  
165.000

BETA0  
-2.000  
-0.070

ALPHAC  
4.220

MACH  
RUDDER

PARAMETRIC VALUES  
1.250 ELEVCH  
.000 SPDBRK  
.000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC:1-716 1A14 01+T12+S12N25+AT10 EXTERNAL TANK (RBT33)

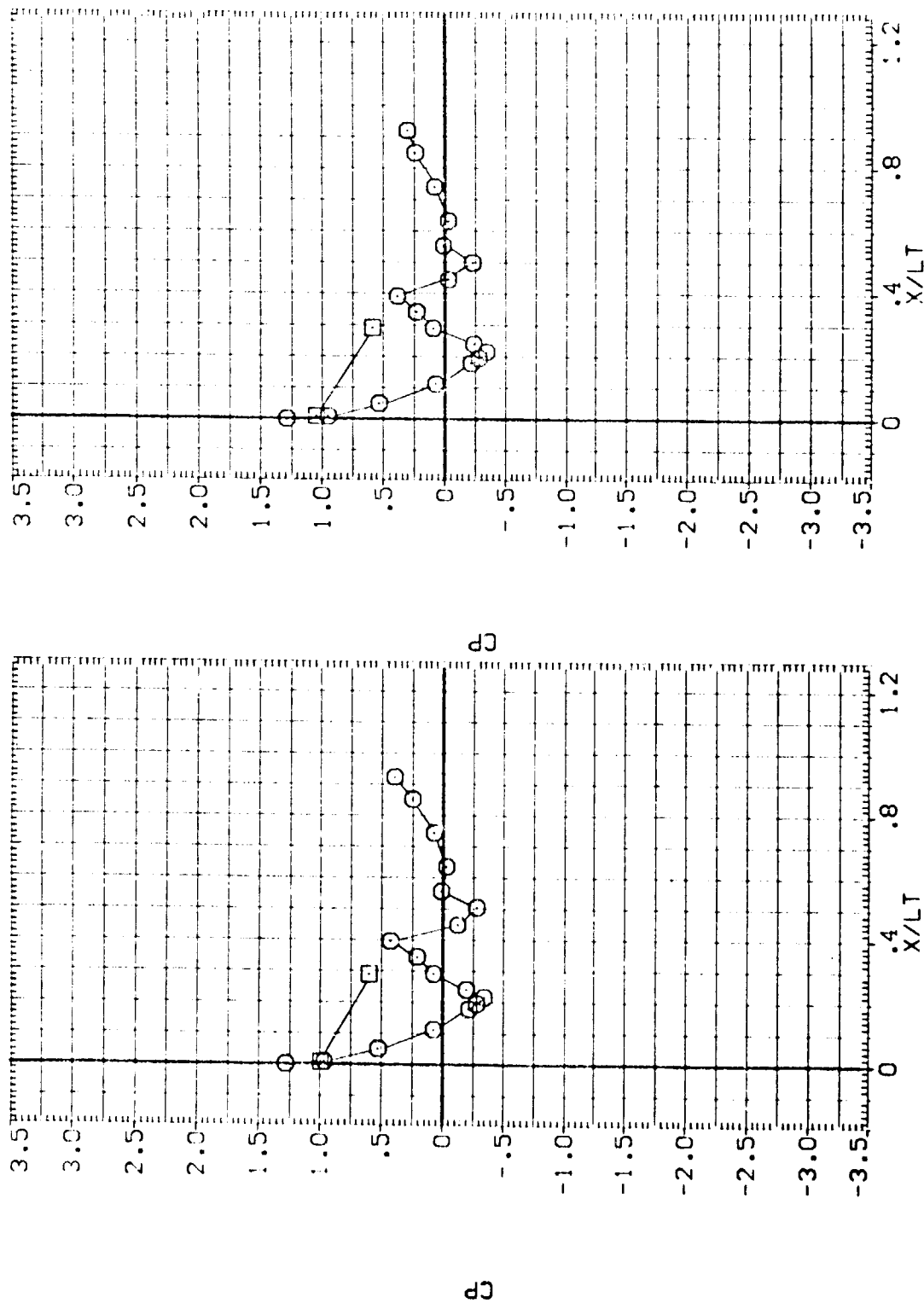
SYMBOL  
O  
□

P41 180.000  
270.000

BETA0 -2.000  
- .070

ALPHA0 4.220

PARAMETRIC VALUES  
MACH 1.250  
RUDDER .000  
ELEVON .000  
SPDRX .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 JA14 01+T12+S12N25+AT10 EXTERNAL TANK (RB1T33)

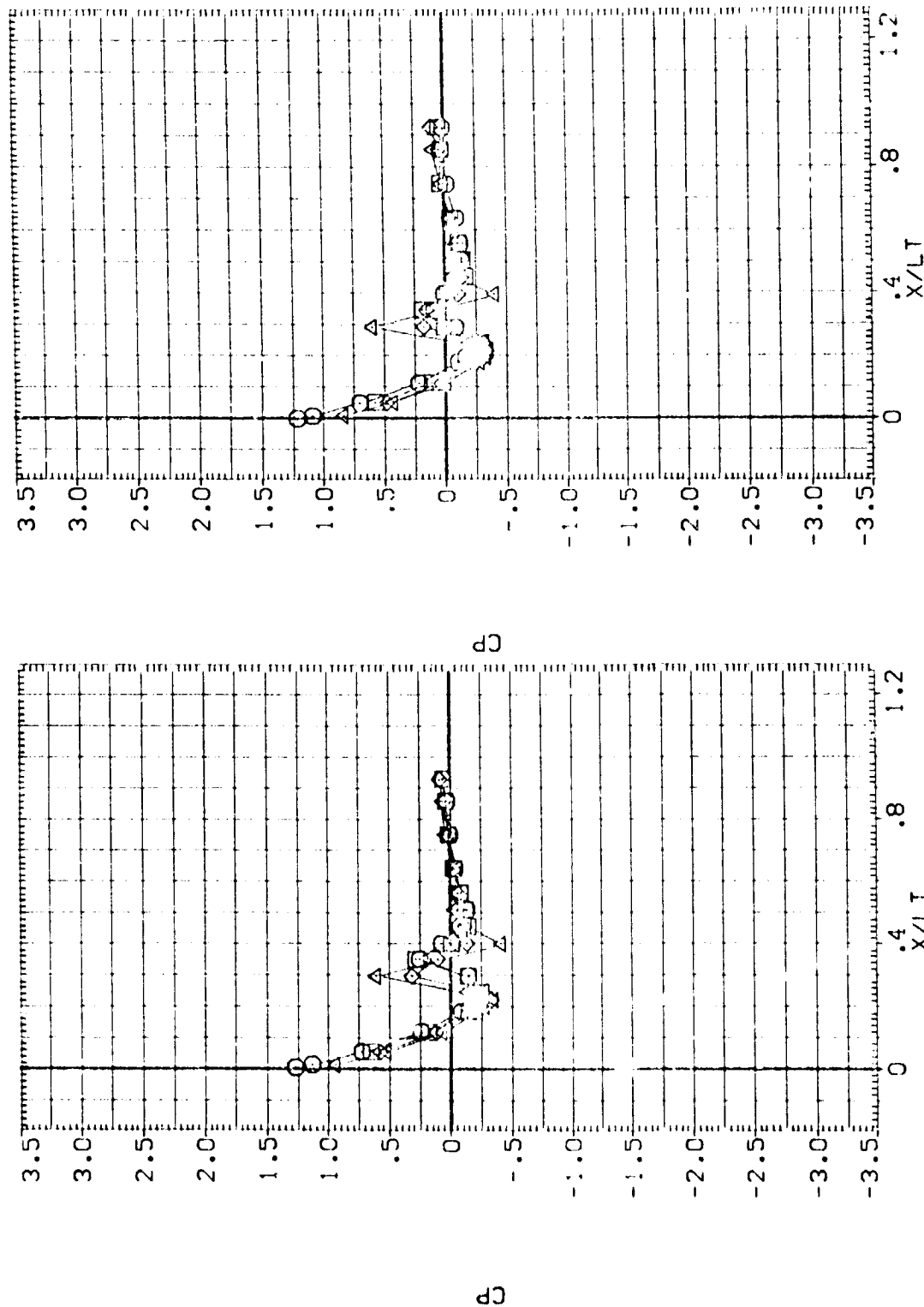
SYMBOL  
○ □ △

PHI  
.000  
30.000  
60.000  
90.000

BETA  
4.10C  
8.15C

ALPHA  
4.430

PARAMETRIC VALUES  
MACH 1.250 ELEVON .000  
RUDDER .000 SPOILER .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

# ARC11-716 1A14 01+T12+S12N25+AT10 EXTERNAL TANK (RB1T33)

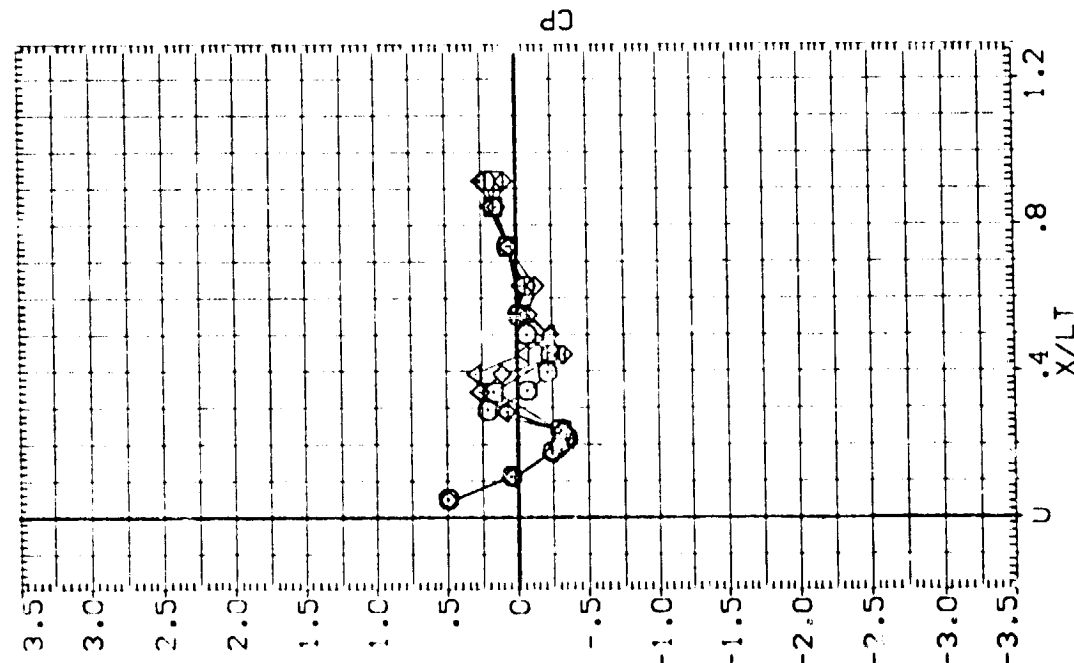
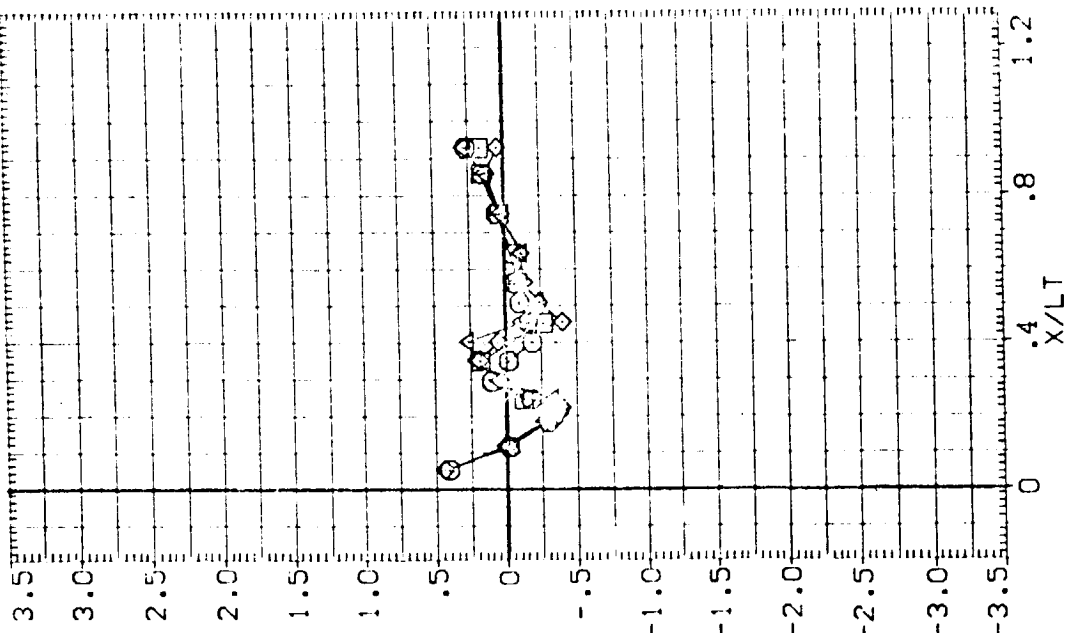
SYMBOL  
 ○  
 ◇  
 △

PHI  
 120.000  
 135.000  
 150.000  
 165.000

BETA0  
 4.100  
 8.150

ALPHA0  
 4.430

PARAMETRIC VALUES  
 MACH 1.250  
 RUDDER .000  
 ELEVON .000  
 SPOON .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-7:6 1A14 01-T12+S12N25+AT10 EXTERNAL TANK (RB1T33)

S1480

PHI

BETA2

ALPHA2

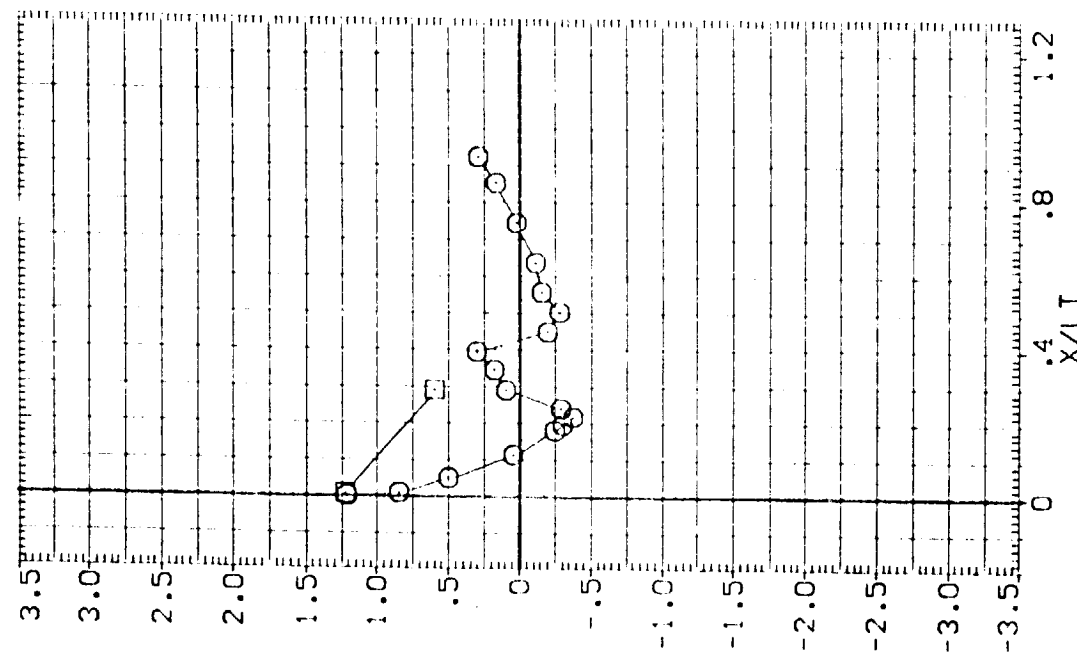
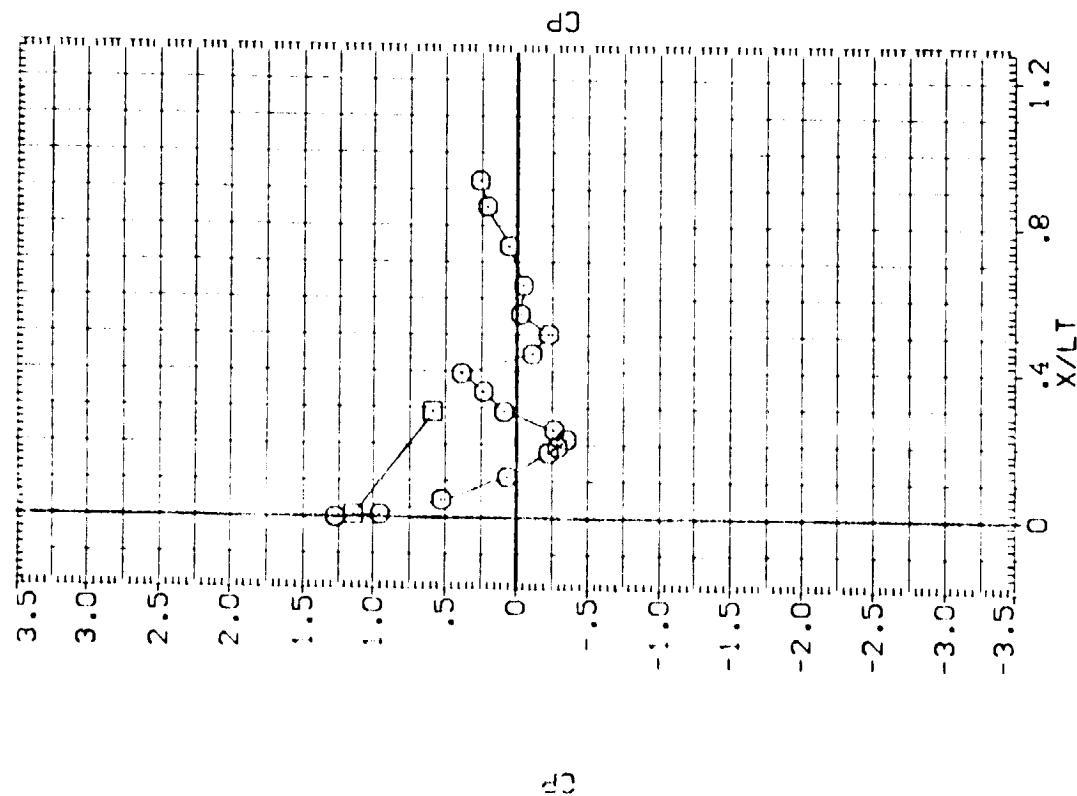
180.000  
270.000

4.100  
8.150

4.430

PARAMETRIC VALUES

MACH 1.250  
ELEVON .000  
RUDDER .000  
SPOILER .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



ARC11-716 1A14 01+T12+S12N25+AT10 EXTERNAL TANK (RB1T33)

SYMBOL

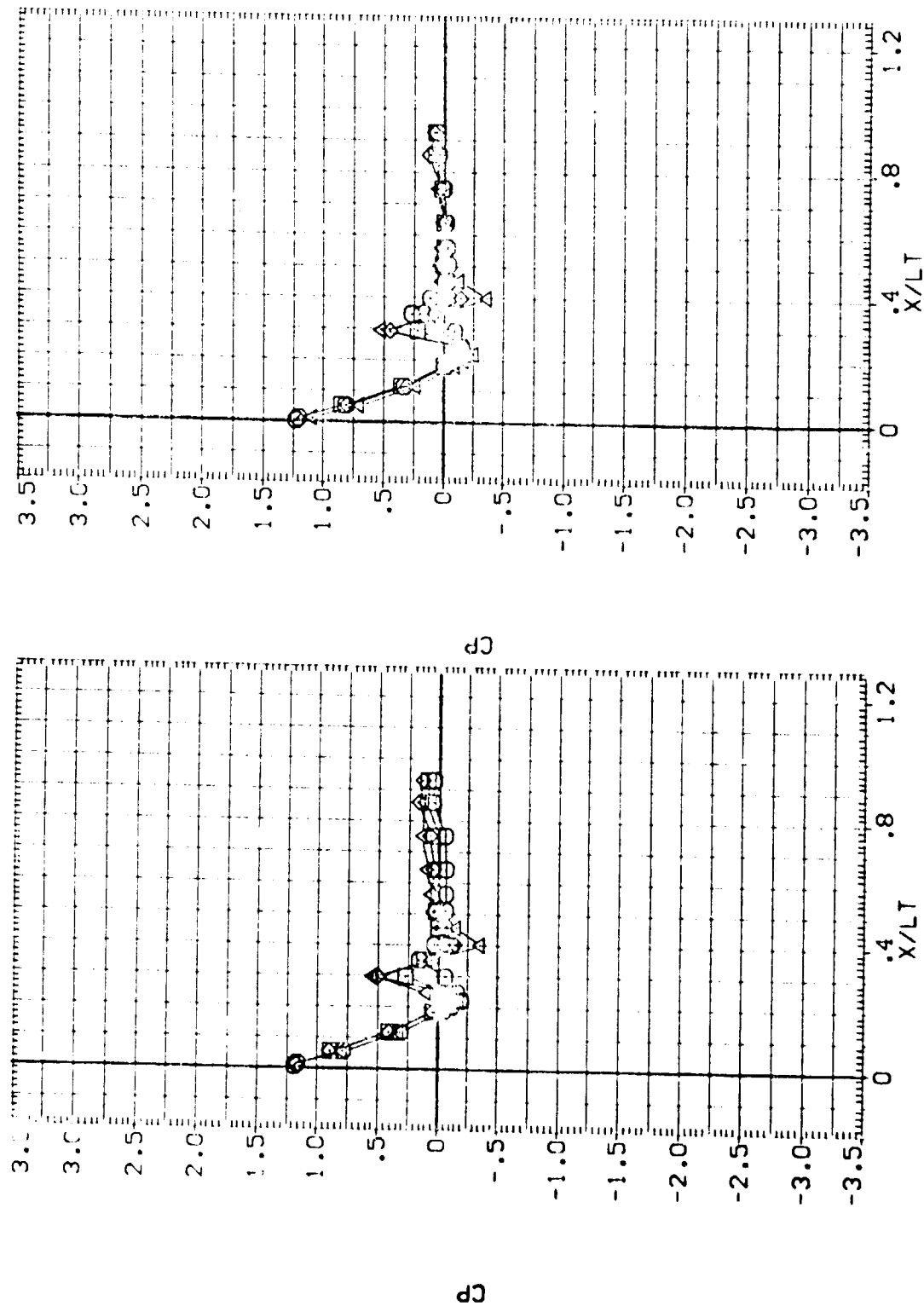
PHI  
 .000  
 30.000  
 60.000  
 90.000

BETA0  
 -8.000  
 -4.000

ALPHA0  
 7.930

PARAMETRIC VALUES

MACH 1.250  
 RUDDER .000  
 ELEVON .000  
 SPOILER .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+012+S12N25+AT10 EXTERNAL TANK (RB1133)

SYMBOL  
 O  
 A  
 X  
 1

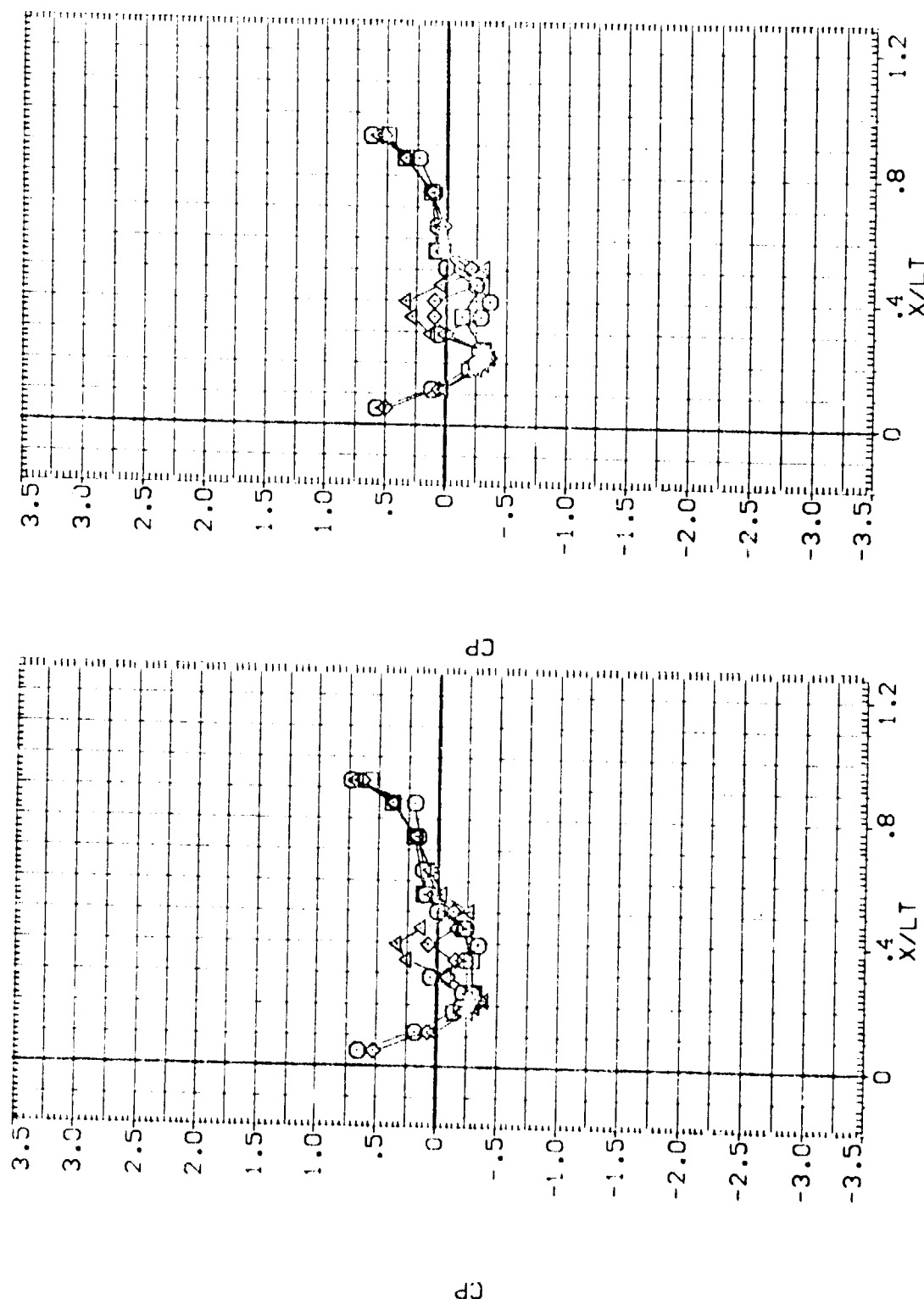
PHI  
 120.000  
 135.000  
 150.000  
 165.000

BETAS  
 -8.030  
 -4.000

ALPHA0  
 7.930

MACH  
 RUDDER  
 .000  
 .000

PARAMETRIC VALUES  
 1.250  
 .000  
 ELEVON  
 SPOBRN  
 .000  
 .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 EXTERNAL TANK (RB1T33)

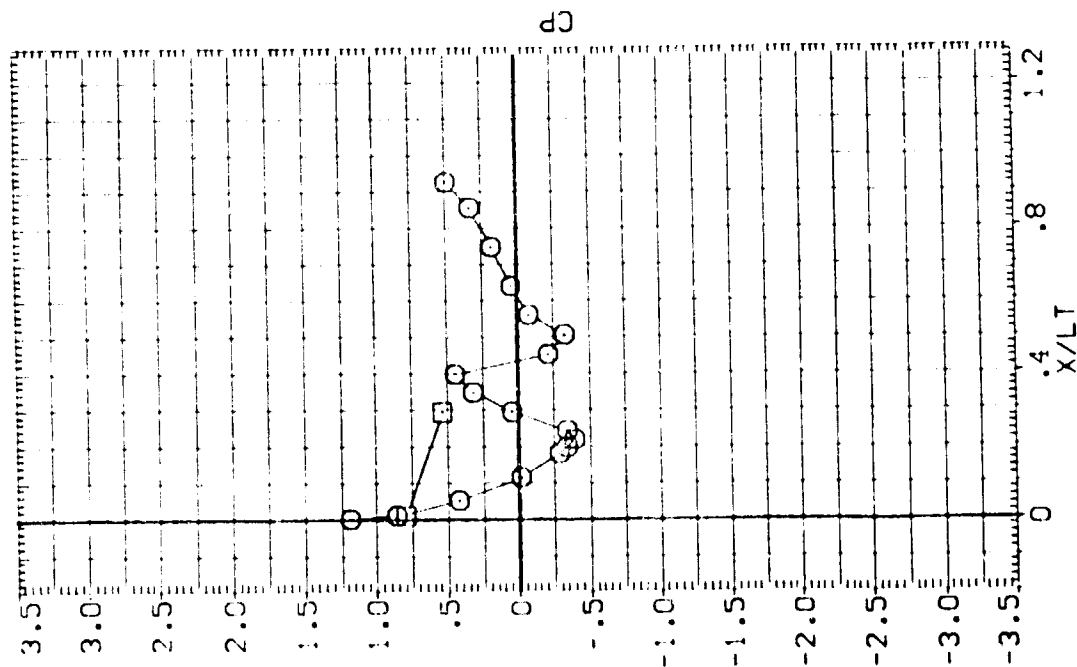
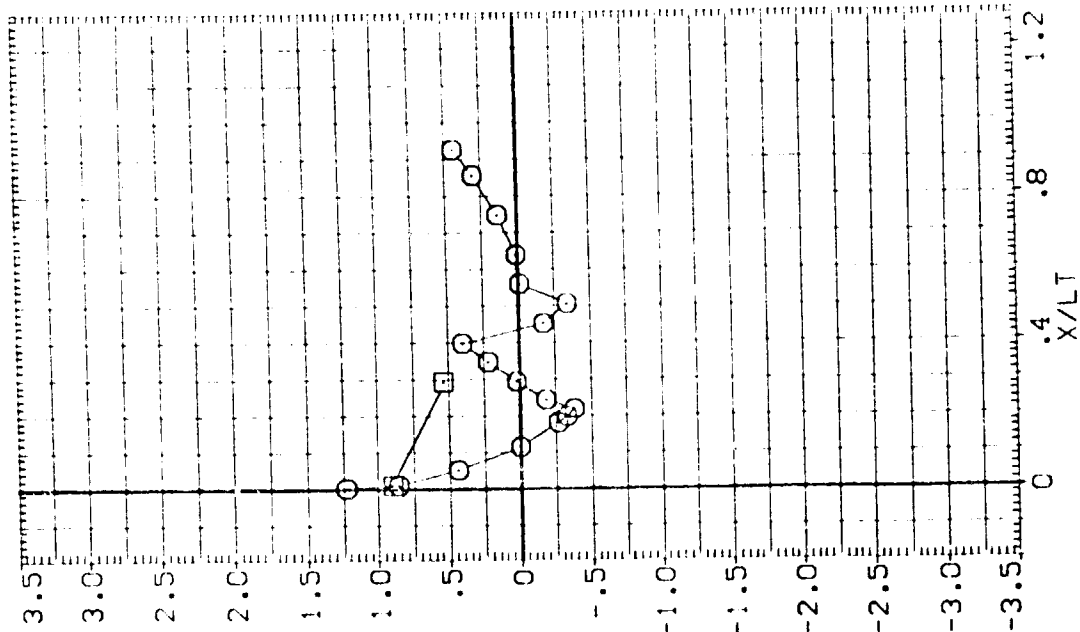
SYMBOL  
O

P-1  
180.000  
270.000

BETA0  
-8.030  
-4.000

ALPHA0  
7.930

PARAMETRIC VALUES  
MACH 1.250  
ELEVON .000  
RUDDER .000  
SP039M .000

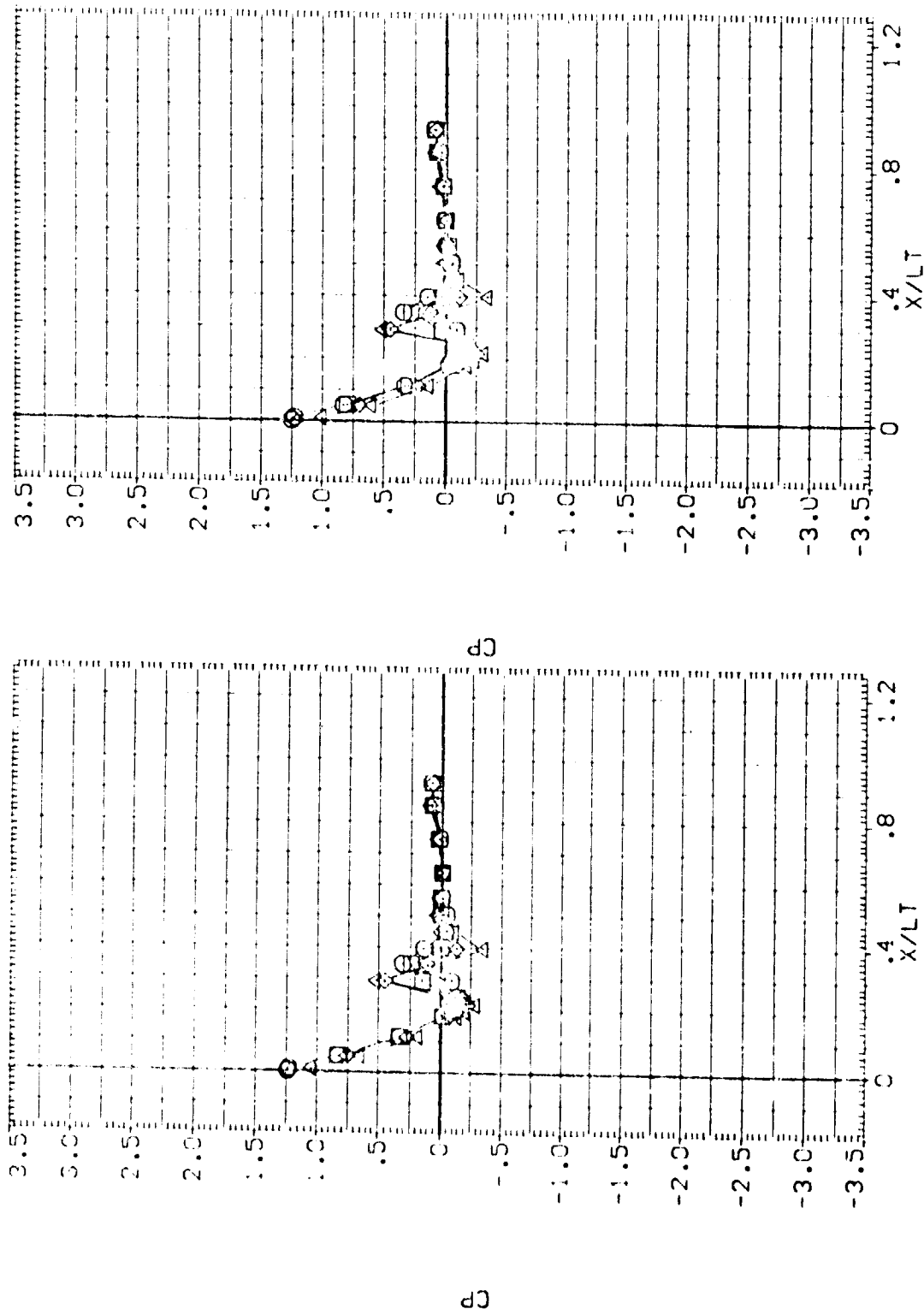


LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



ARC11-716 1A14 01+T12+S12N25+AT10 EXTERNAL TANK (RB1T33)

SYMBOL	P-1	BETAS	ALPHA0	PARAMETRIC VALUES		
				MACH	ELEVON	SPDBRK
○	.000	-2.030	7.830	.000	.000	.000
△	30.000	.040		.000	.000	.000
◇	60.000					
×	90.000					



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+112+S12N25+AT10 EXTERNAL TANK (RB1T33)

SYMBOL

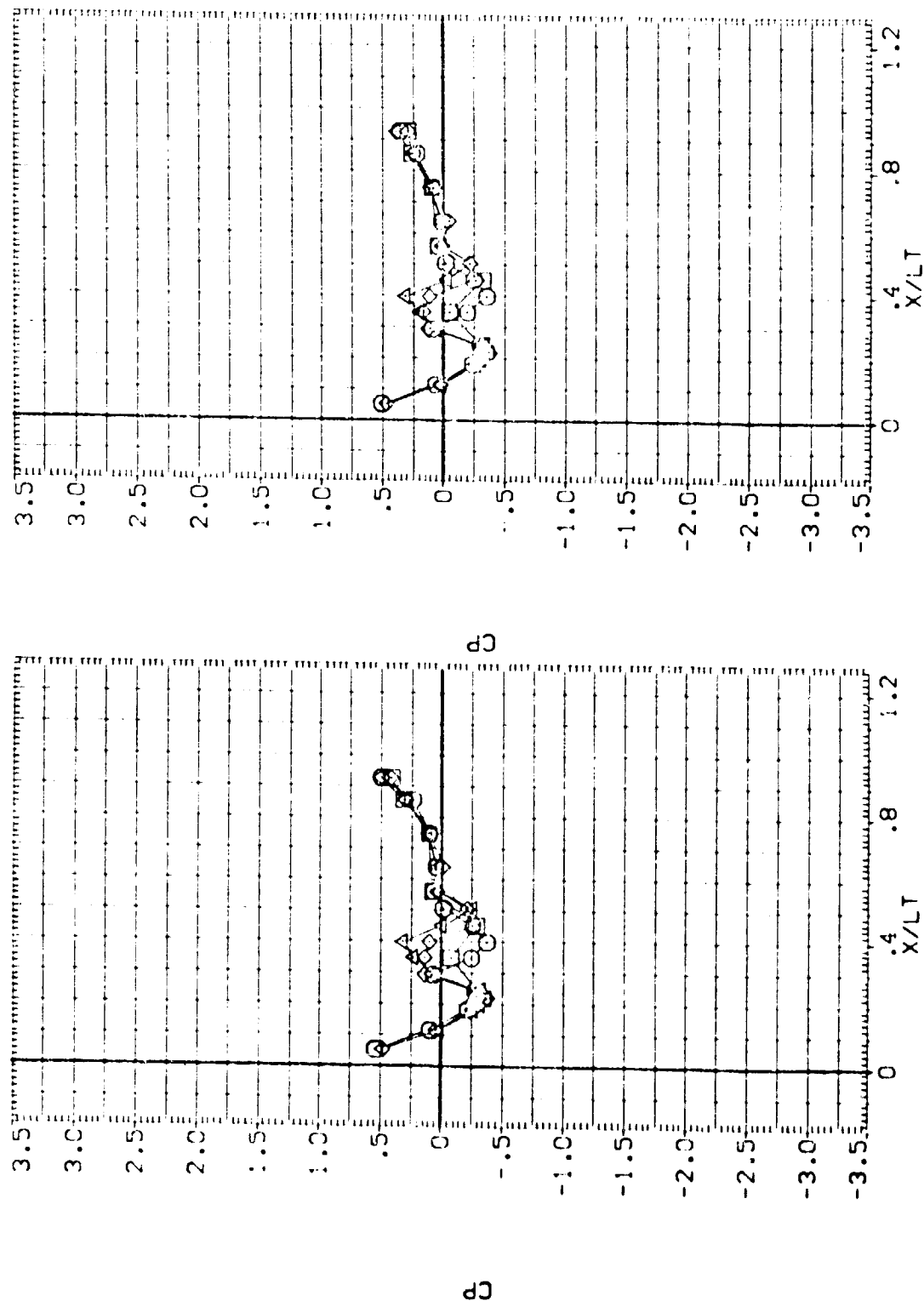
120.000  
135.000  
150.000  
165.000

BETA0  
-2.030  
.040

ALPHA0  
7.830

PARAMETRIC VALUES

MACH  
1.250  
ELEVON  
.000  
SPCBK  
.000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-016 1A14 01+112+S12N25+AT10 EXTERNAL TANK (RB:133)

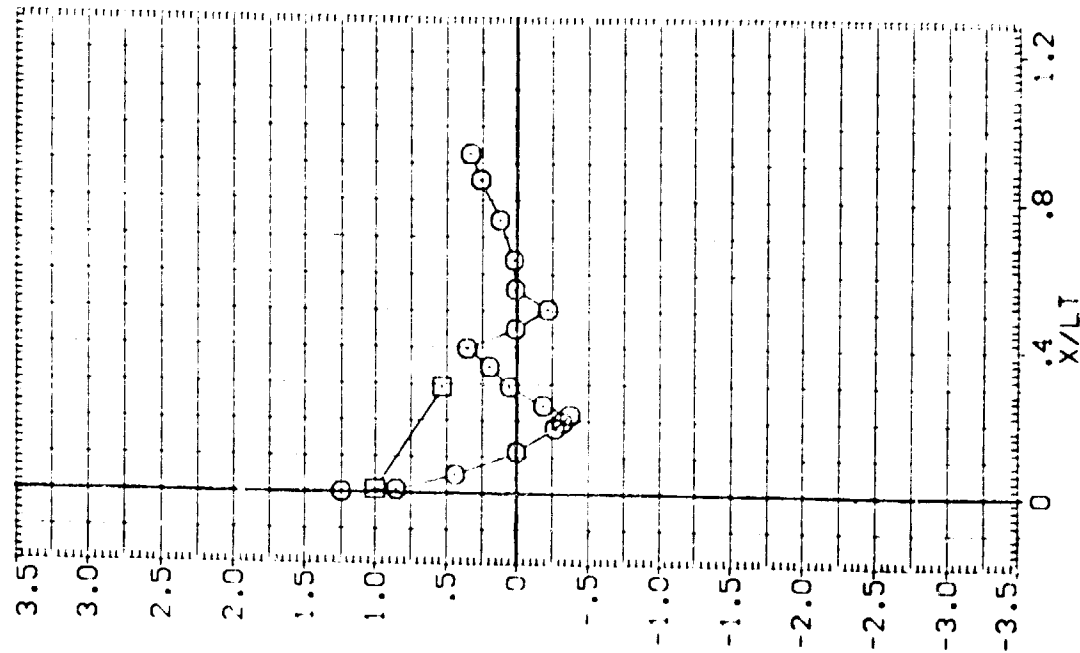
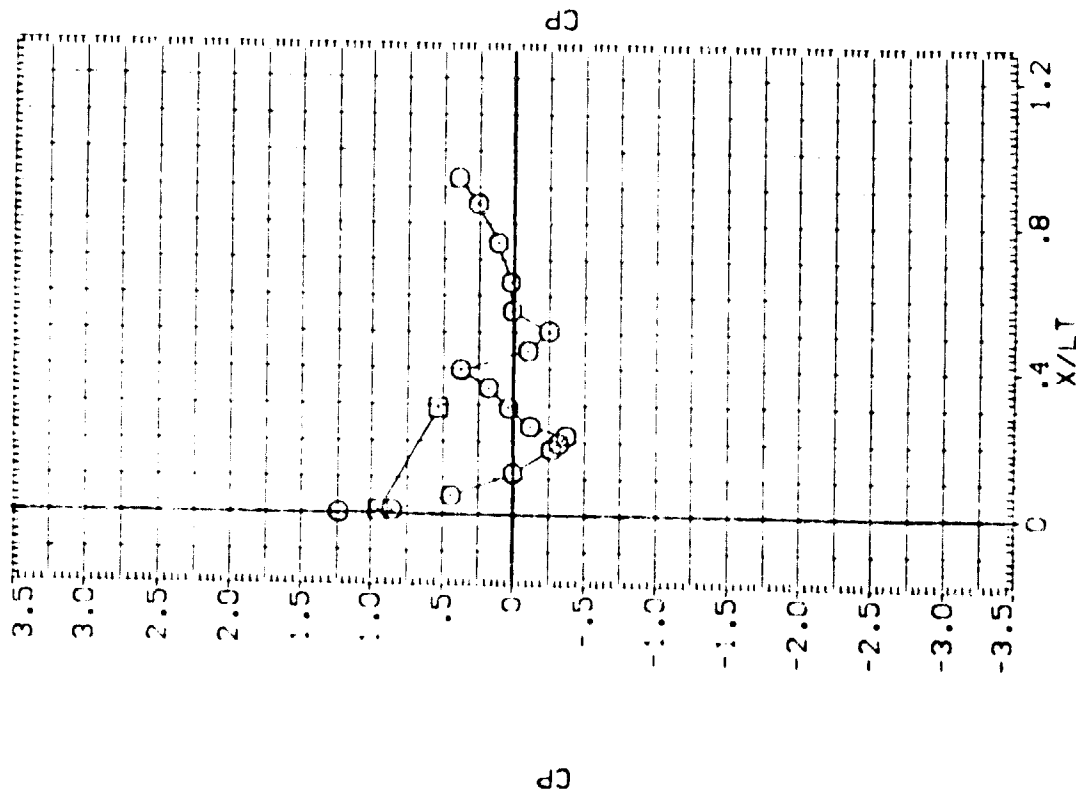
SYMBOL  
180.000  
270.000

BETAC  
-2.030  
.040

ALPHA0  
7.830

MACH  
RUDDER

PARAMETRIC VALUES  
1.250 ELEVON  
.000 SPOILER  
.000

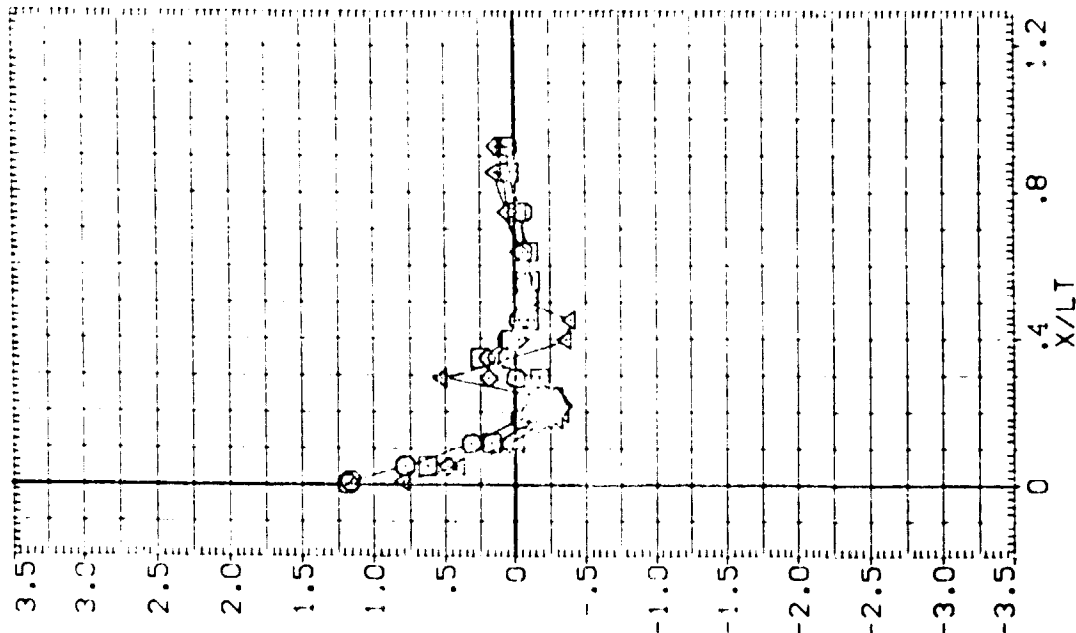
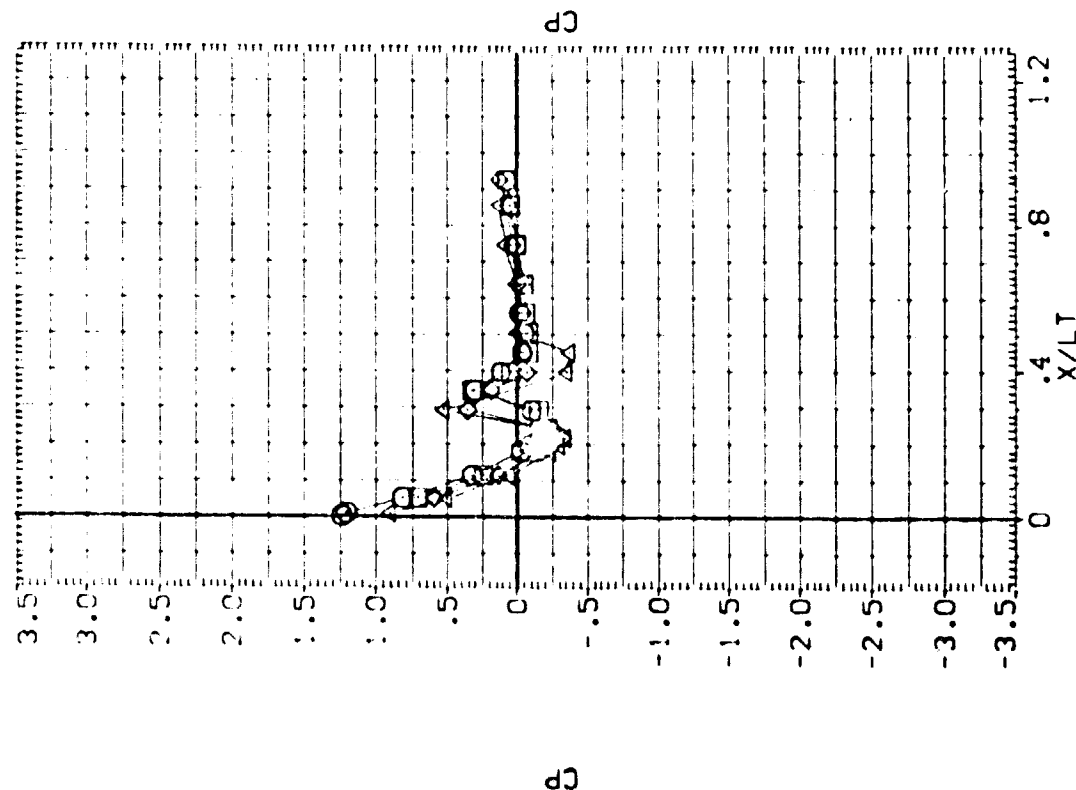


LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

SYMBOL  
 ○  
 □  
 △  
 ◇

PA-1  
 .000  
 30.000  
 60.000  
 90.000

PARAMETRIC VALUES  
 MACH 1.250  
 ELEVON .000  
 SPOBRK .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

# ARC11-716 IA14 01+T12+S12N25+AT10 EXTERNAL TANK (RB1T33)

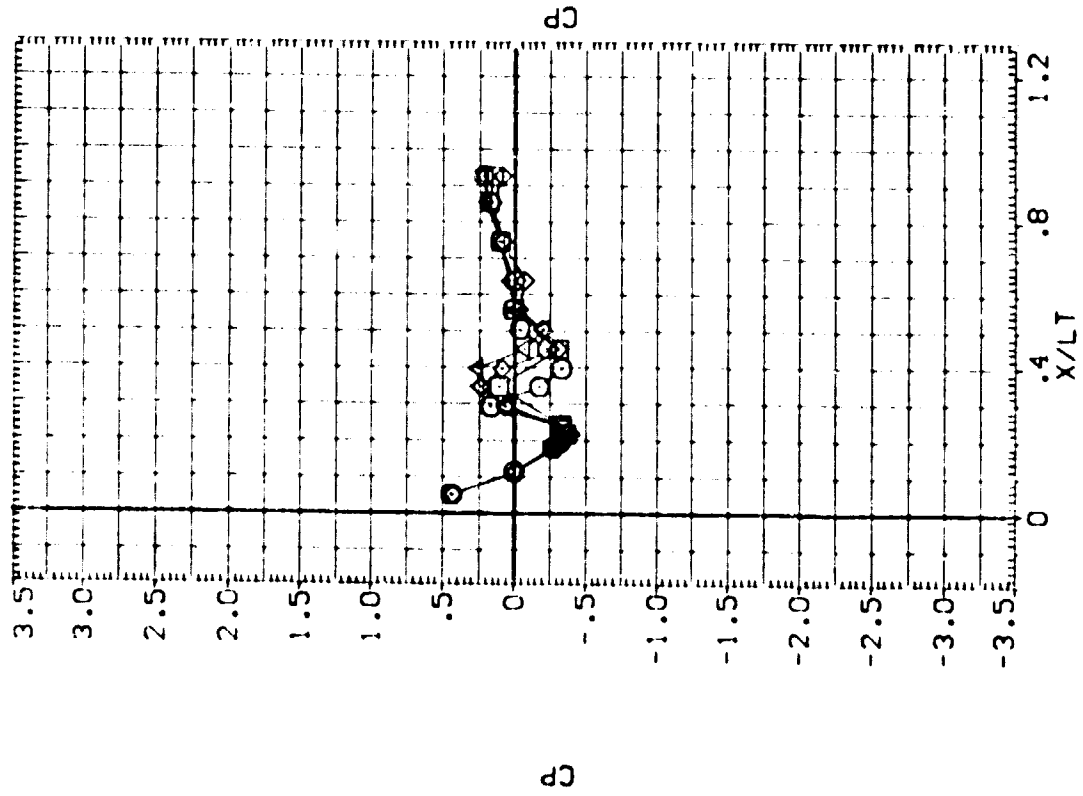
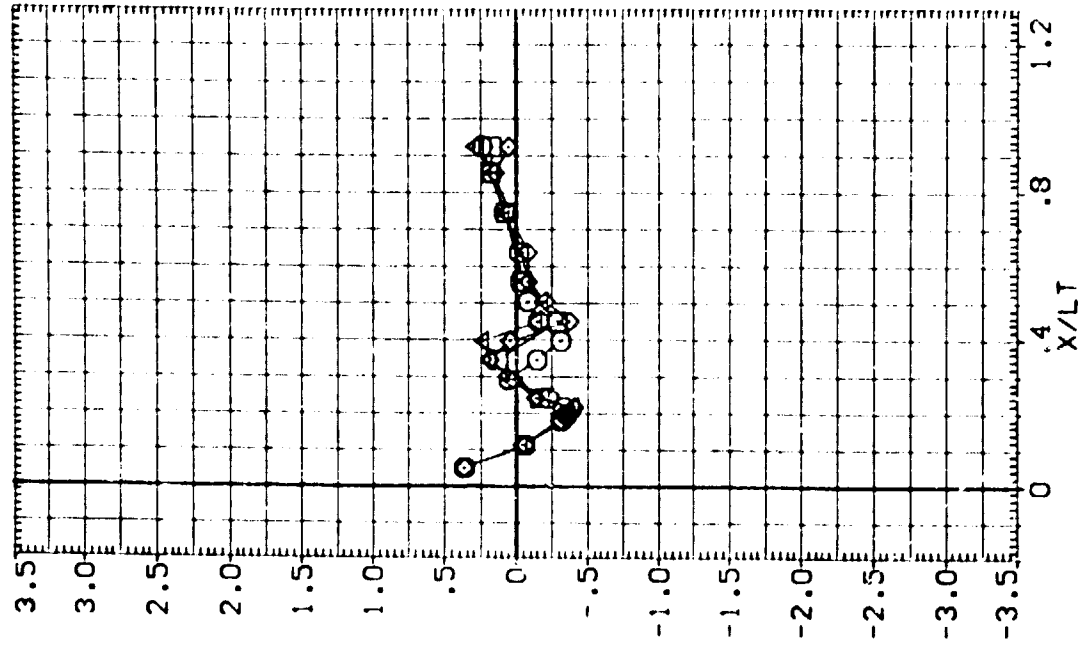
SYMBOL  
 ○  
 ◇  
 △

PHI  
 120.000  
 135.000  
 150.000  
 165.000

BETA0  
 4.060  
 8.110

ALPHA0  
 7.870

PARAMETRIC VALUES  
 MACH  
 1.250  
 RUDDER  
 .000  
 ELEVON  
 .000  
 SPOILER  
 .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



ARC11-716 1A14 01+T12+S12N25+AT10 EXTERNAL TANK (RB1133)

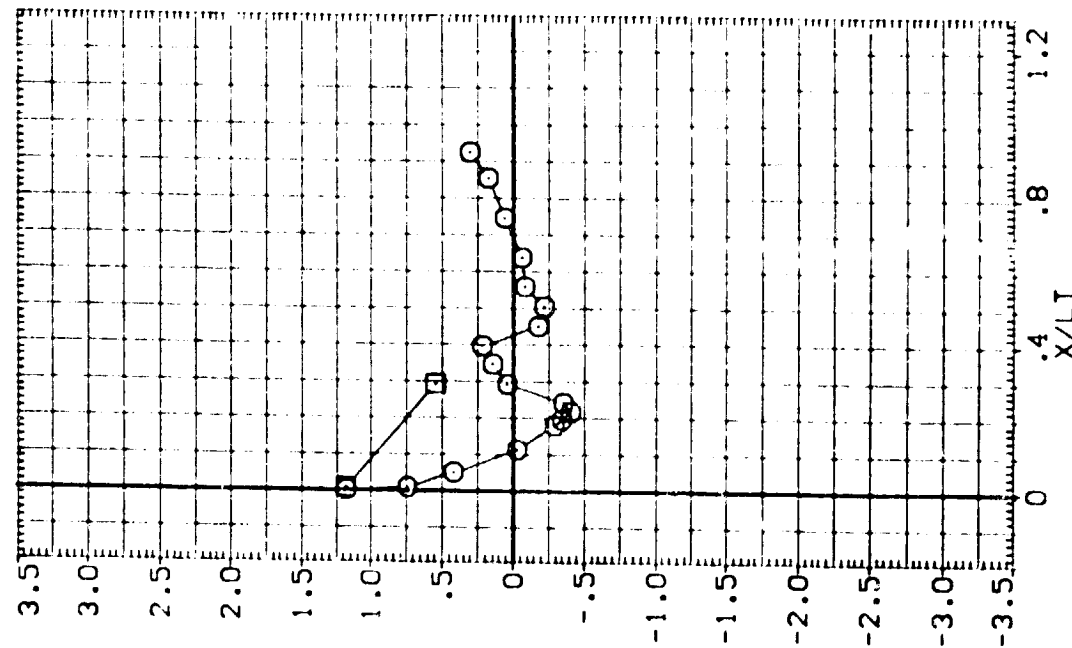
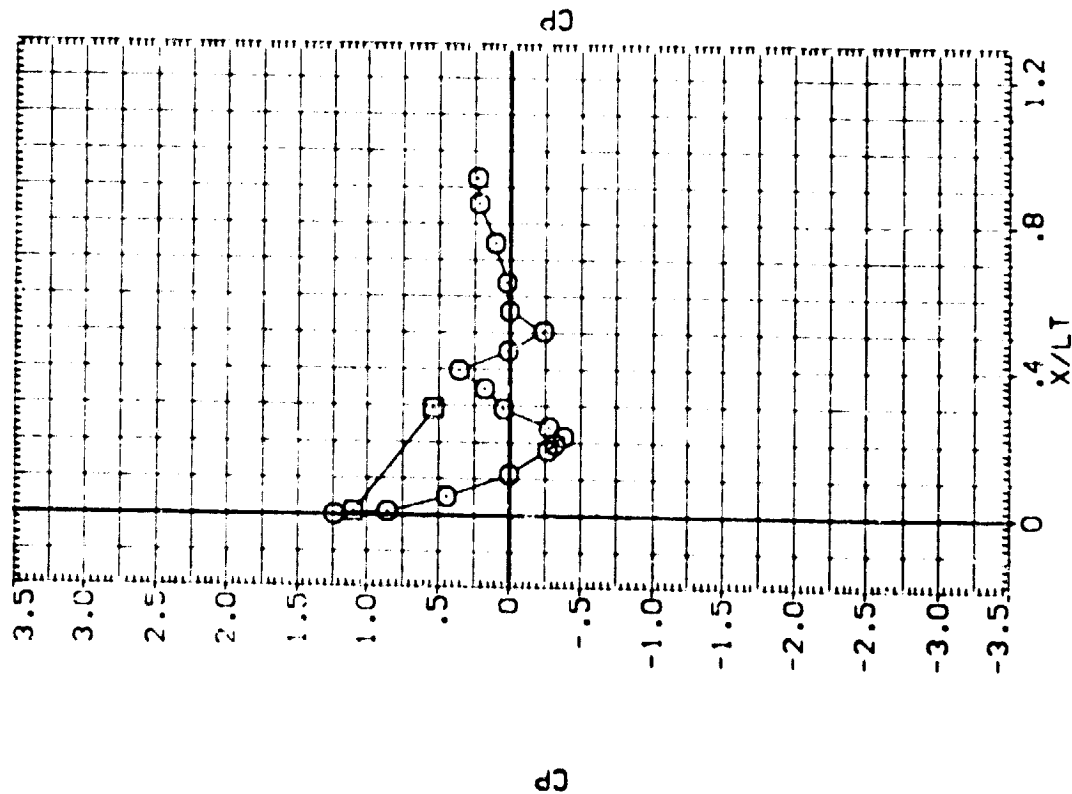
SYMBOL  
○ □

PHI 180.000  
270.000

BETA0 4.050  
8.110

ALPHA0 7.870

PARAMETRIC VALUES  
MACH 1.250  
RUDDER .000  
ELEVON .000  
SPOILER .000

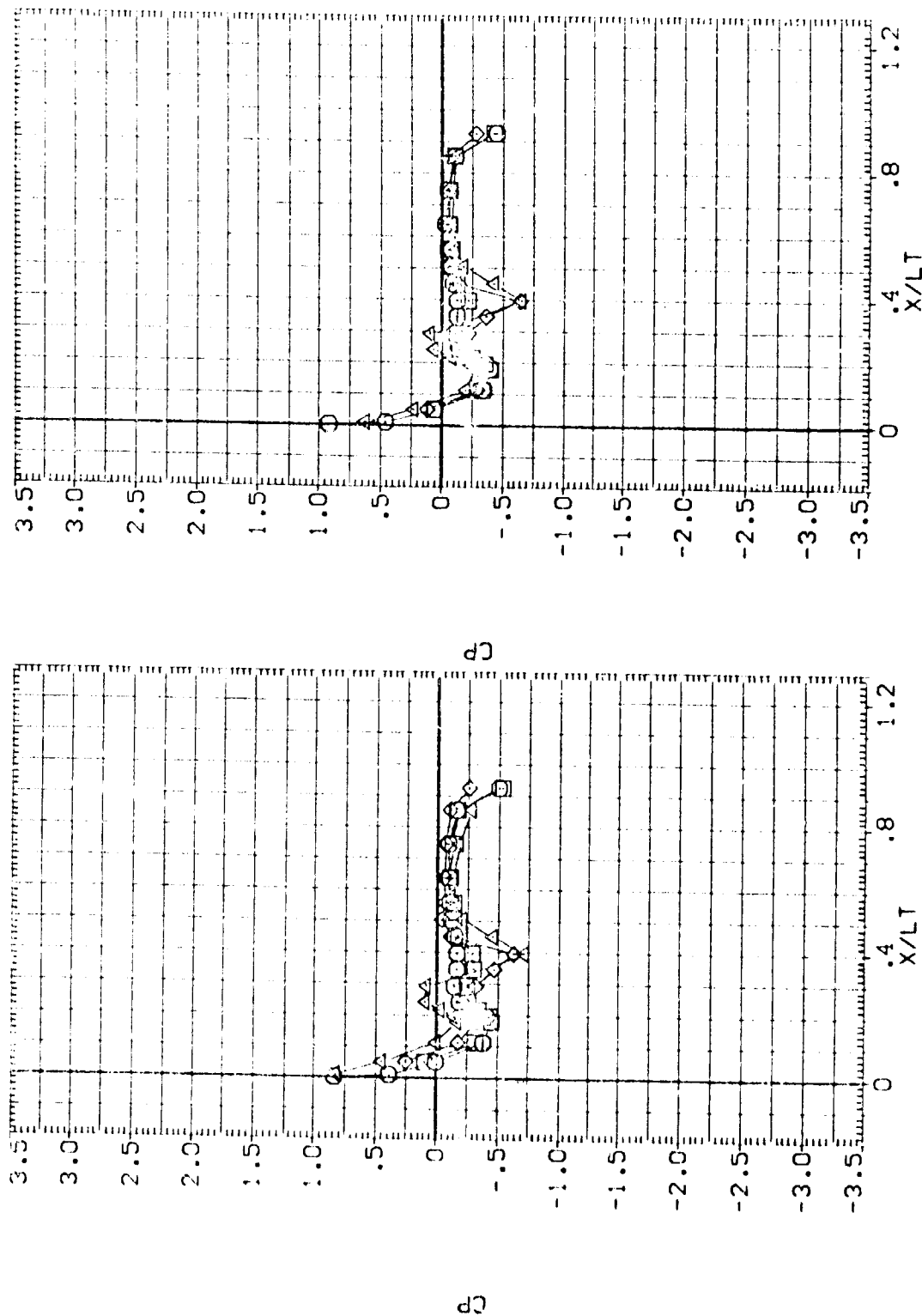


LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+112+S12N25+AT11 EXTERNAL TANK (RB1134)

PARAMETRIC VALUES  
 MACH .600  
 ELEVATION .000  
 RUDDER .000  
 SPOON .000

SYMBOL  
 PH: .000  
 BETA: -8.073  
 ALPHA: -8.361  
 30.000  
 60.000  
 90.000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

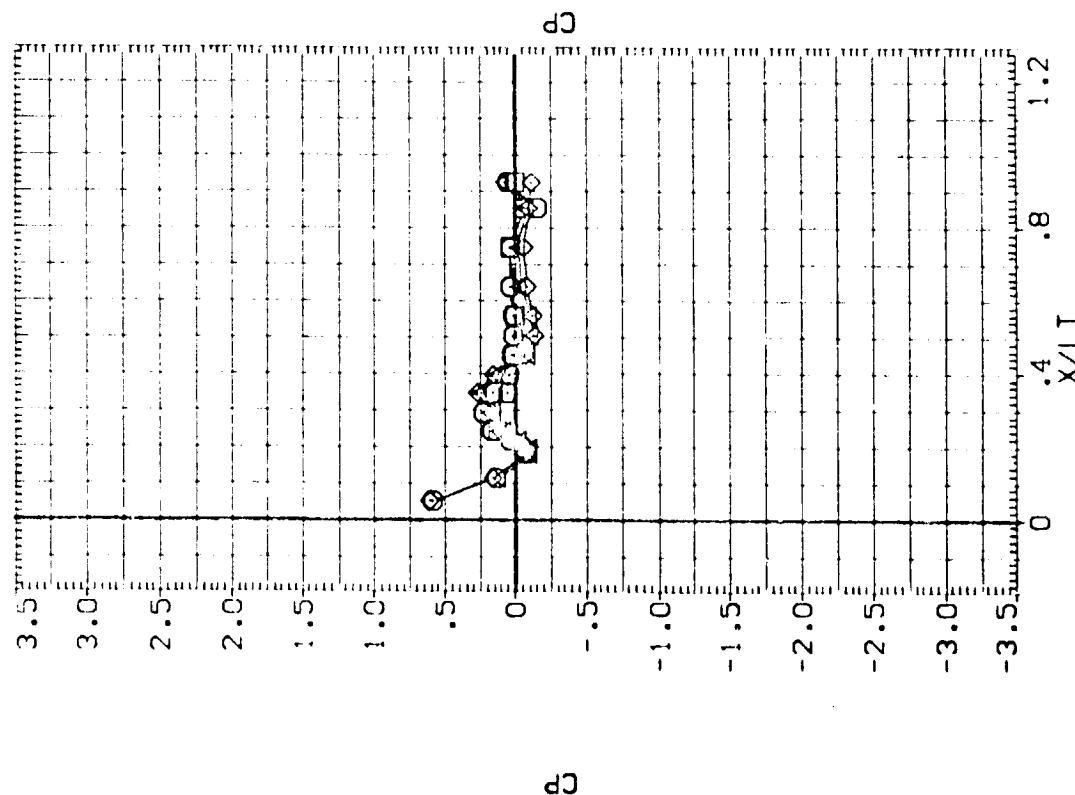
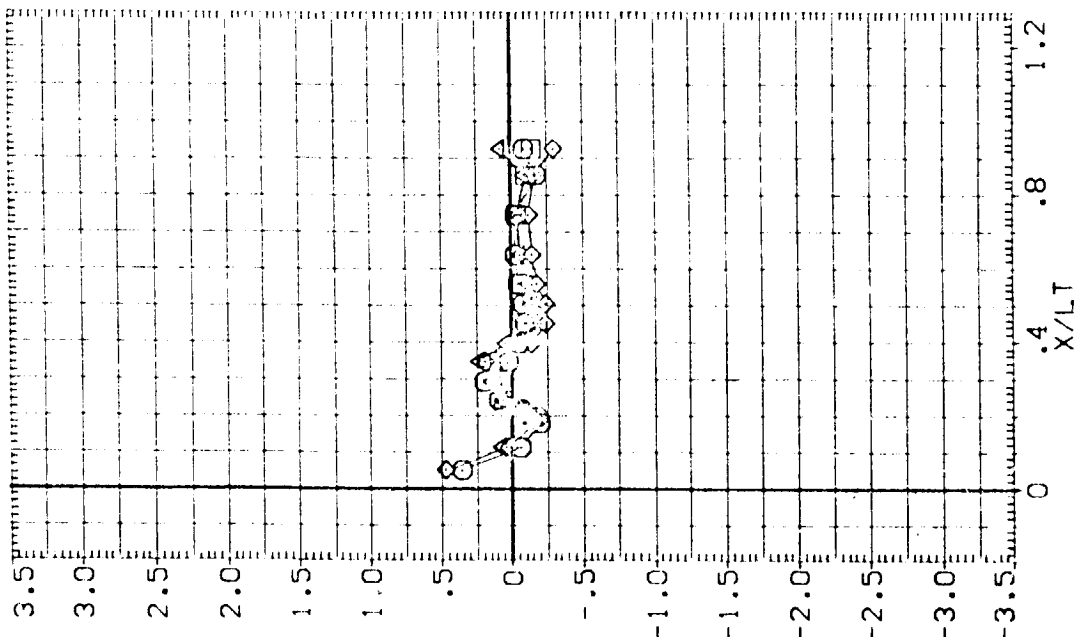
ARC11-716 IA14 01+112+S12N25+AT11 EXTERNAL TANK (RB1T34)

SYMBOL

PHI  
120.000  
135.000  
150.000  
165.000

BETAT  
-8.070  
-8.360  
-8.650

PARAMETRIC VALUES  
MACH .000  
ELEVON .000  
SPC39A .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

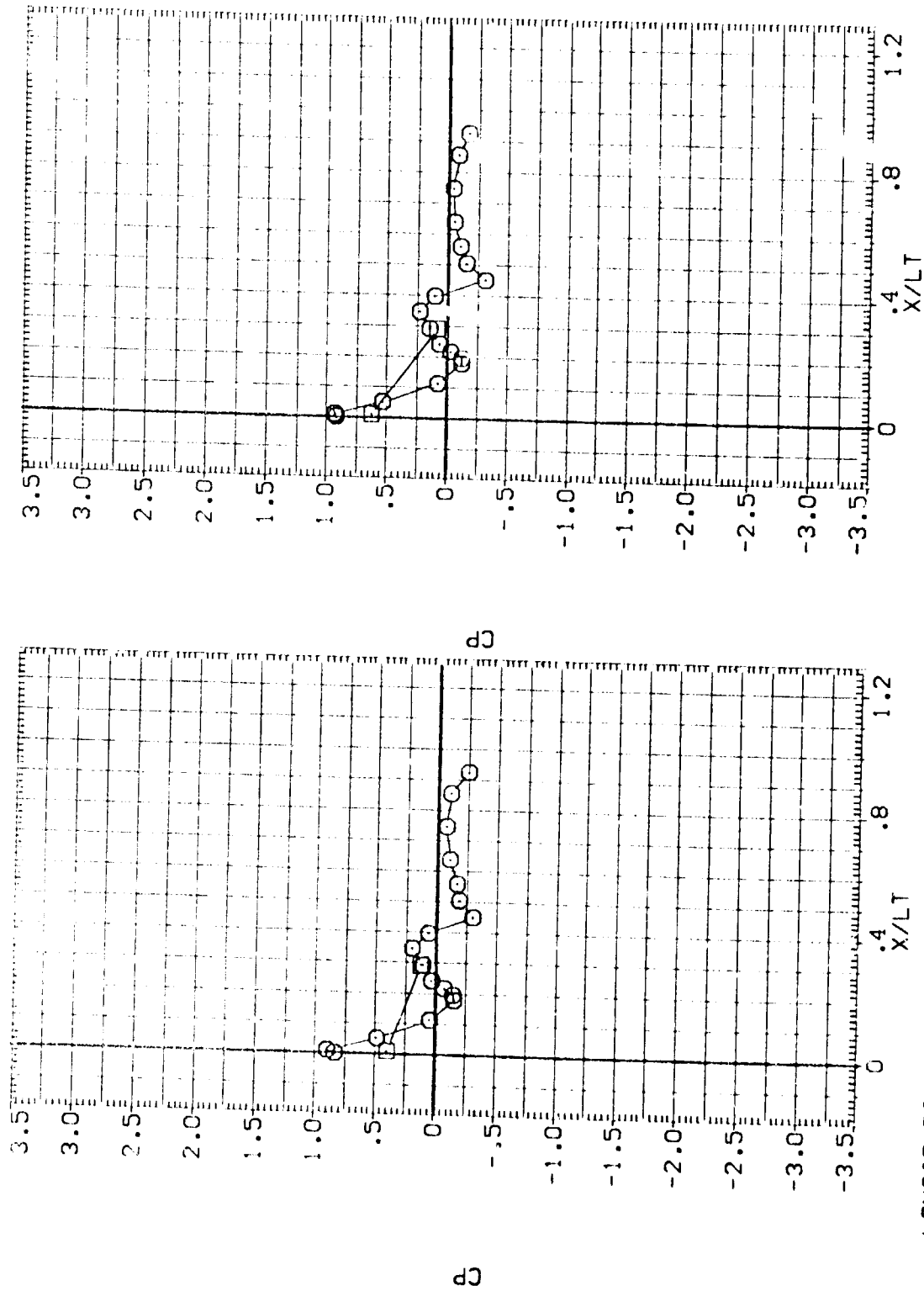
ARC11-716 1A14 01+T12+S12N25+AT11 EXTERNAL TANK (RB1T34)

SYMBOL

180.000  
270.000

BETAT ALPHAT  
-6.070 -5.280  
.210

PARAMETRIC VALUES  
MACH .600 ELEVON .000  
RUDDER .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 EXTERNAL TANK (RB1T34)

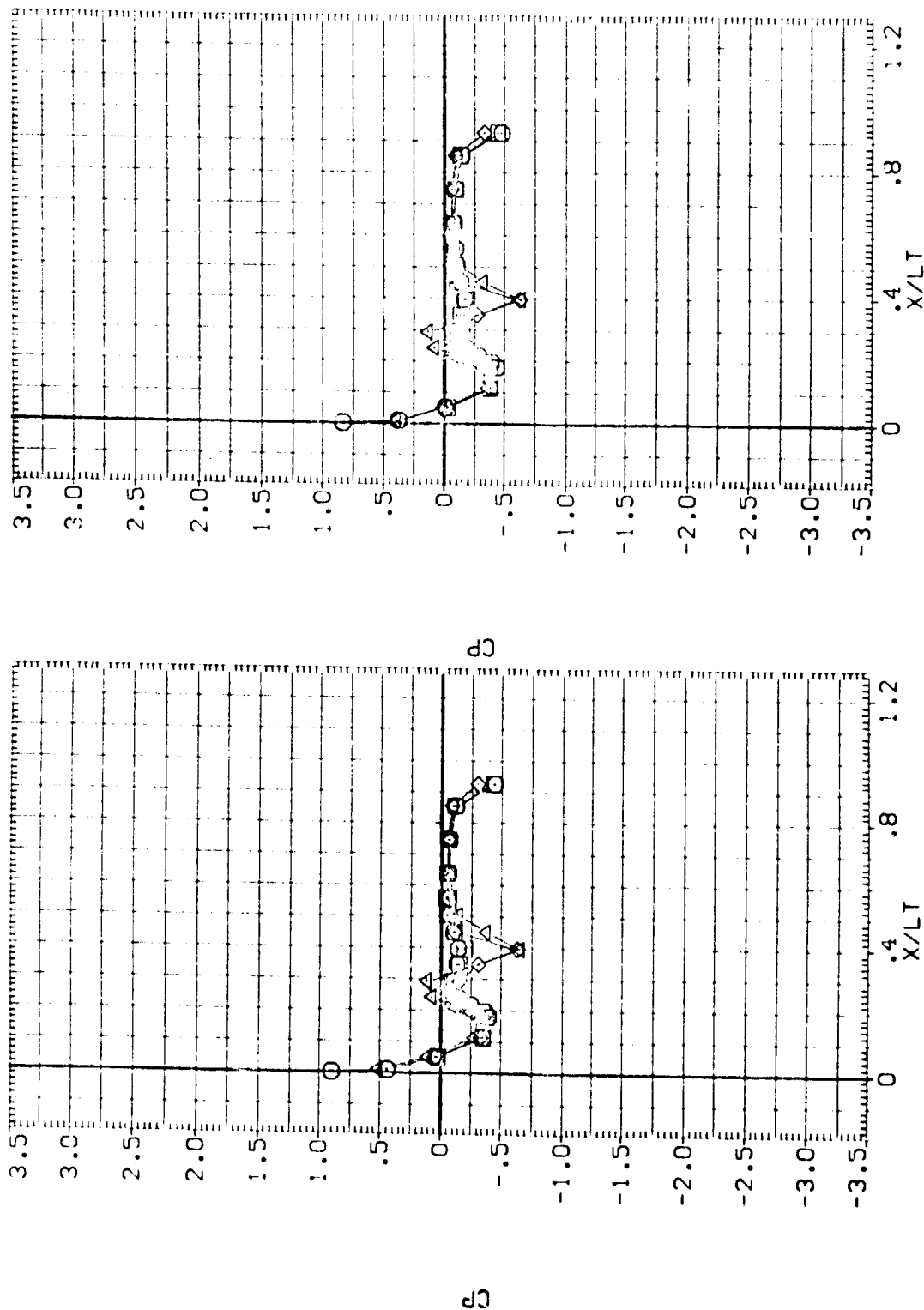
SYMBOL  
 O  
 □  
 △

PHI  
 .000  
 30.000  
 60.000  
 90.000

BETAT  
 4.080  
 8.150

ALPHAT  
 -8.320

PARAMETRIC VALUES  
 MACH .800 ELEVON .000  
 RUDDER .000 SPOBRK .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 EXTERNAL TANK (RB1T34)

SYMBOL

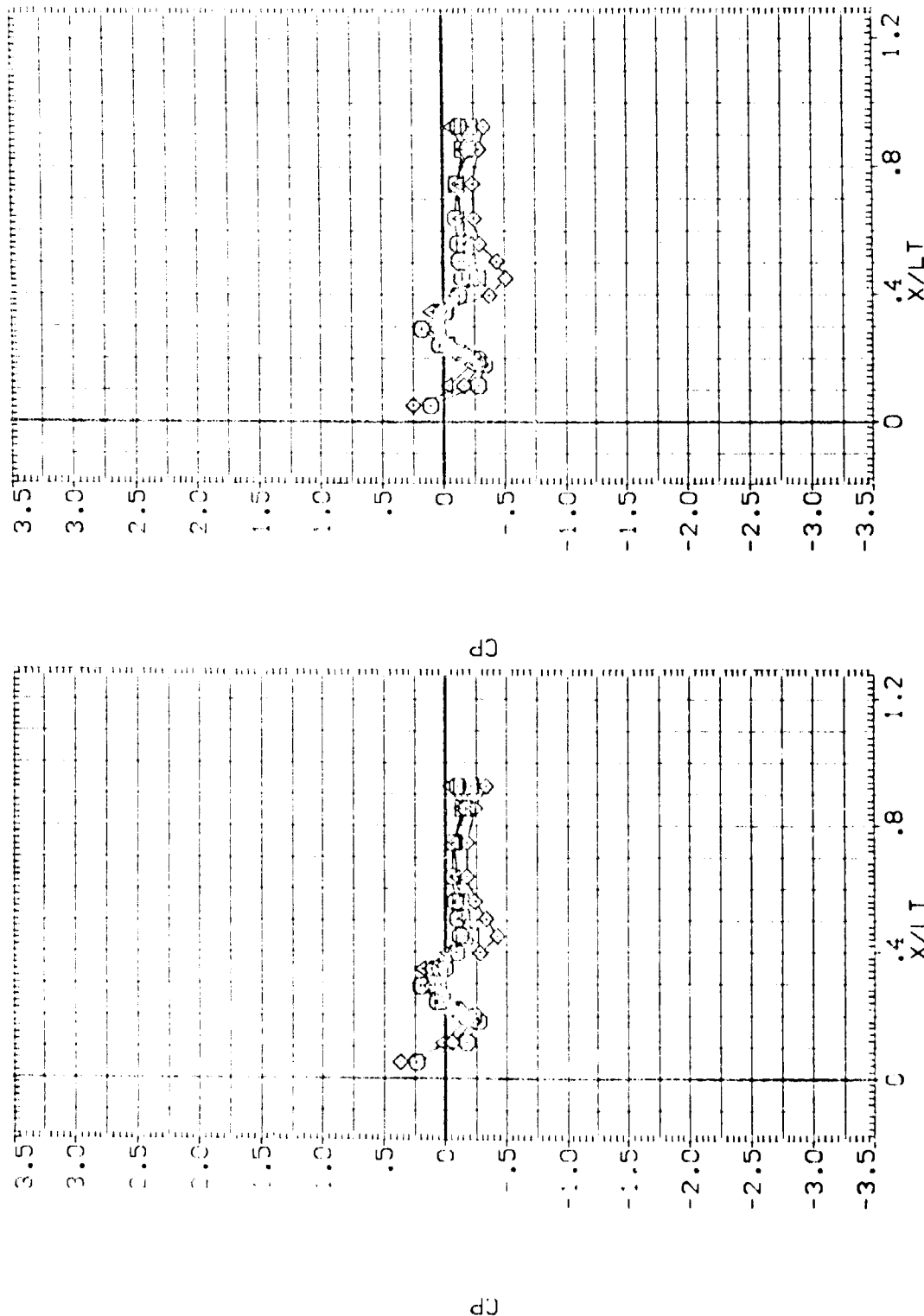
PHI 120.000  
 135.000  
 150.000  
 165.000

BETAT 4.080  
 8.150

ALPHA -8.320

PARAMETRIC VALUES

MACH .600  
 RUDDER .000  
 ELEVON .000  
 SPOILER .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 EXTERNAL TANK (RB1T34)

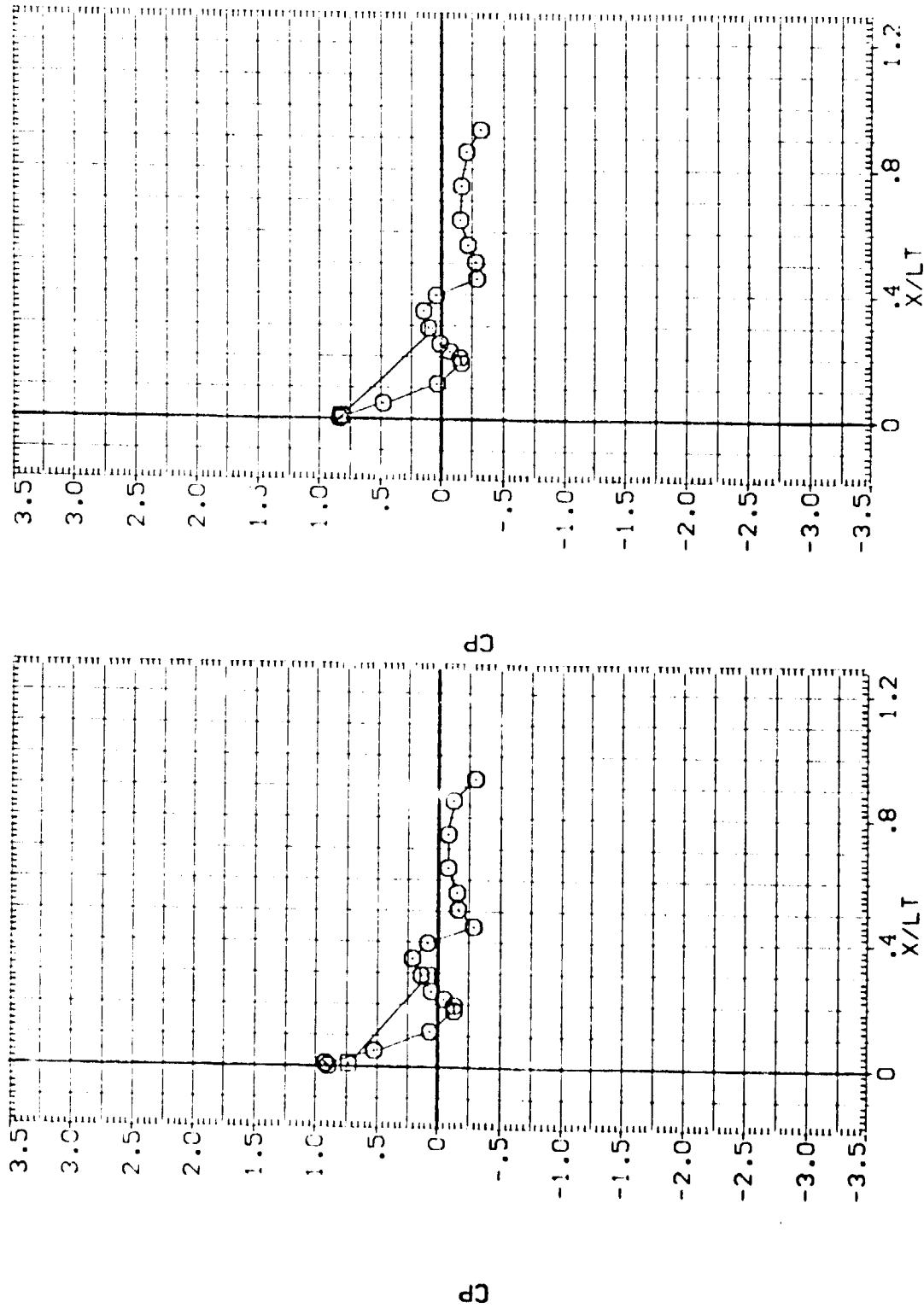
SYMBOL

180.000  
270.000

BETAT 4.080  
8.150

ALPHAT -8.320

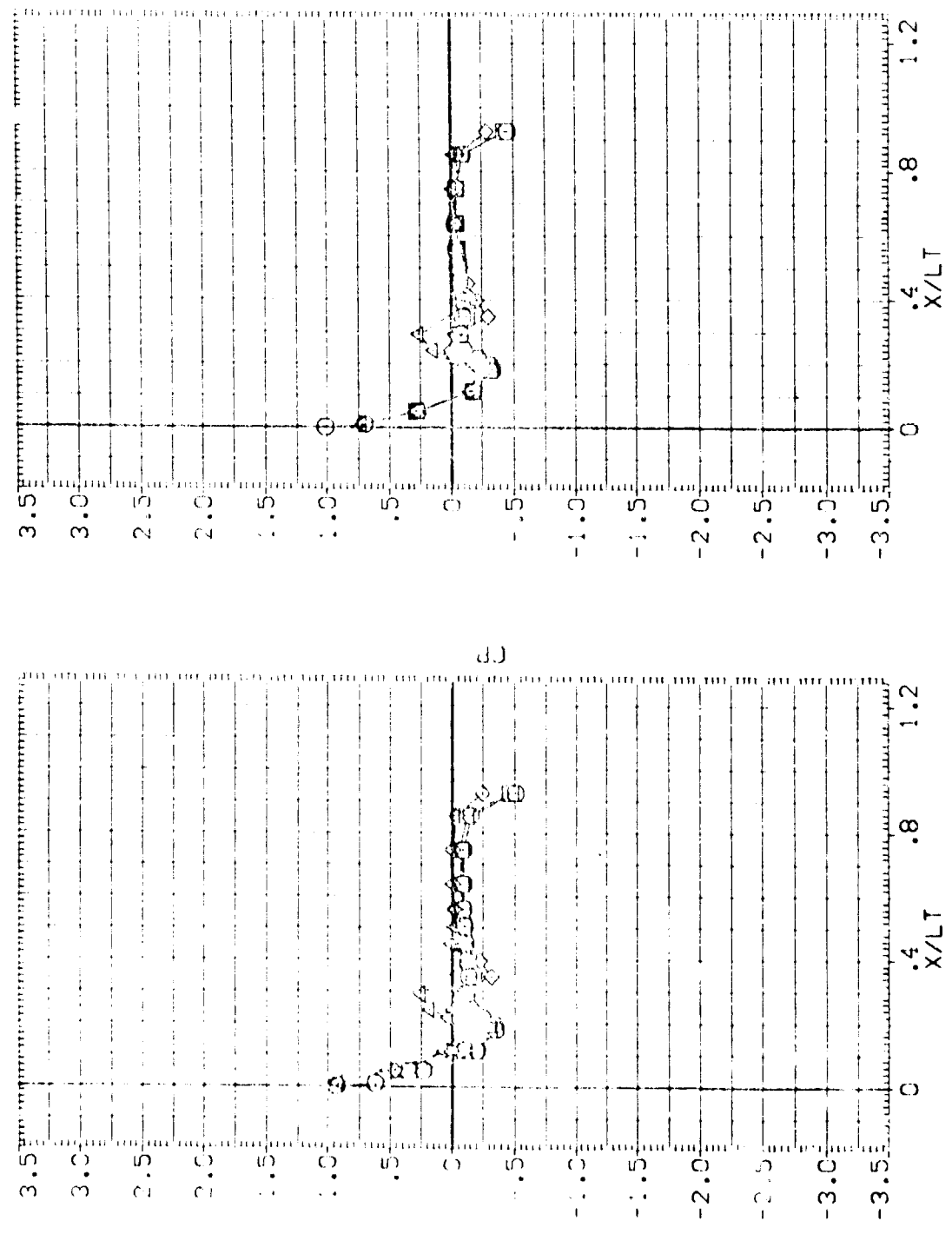
PARAMETRIC VALUES  
MACH .600  
RUDDER .000  
ELEVON .000  
SPORX .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 EXTERNAL TANK (RB1T34)

SYMBOL	PH1	BETA1	ALPHA1	PARAMETRIC VALUES	
	.000	-8.150	-4.90	MACH	ELEVCH
	30.000	.000		.000	.000
	60.000		RUDER	SPOBPK	
	90.000				



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



ARC11-716 1A14 01+T1:2+S12N25+AT11 EXTERNAL TANK (RB134)

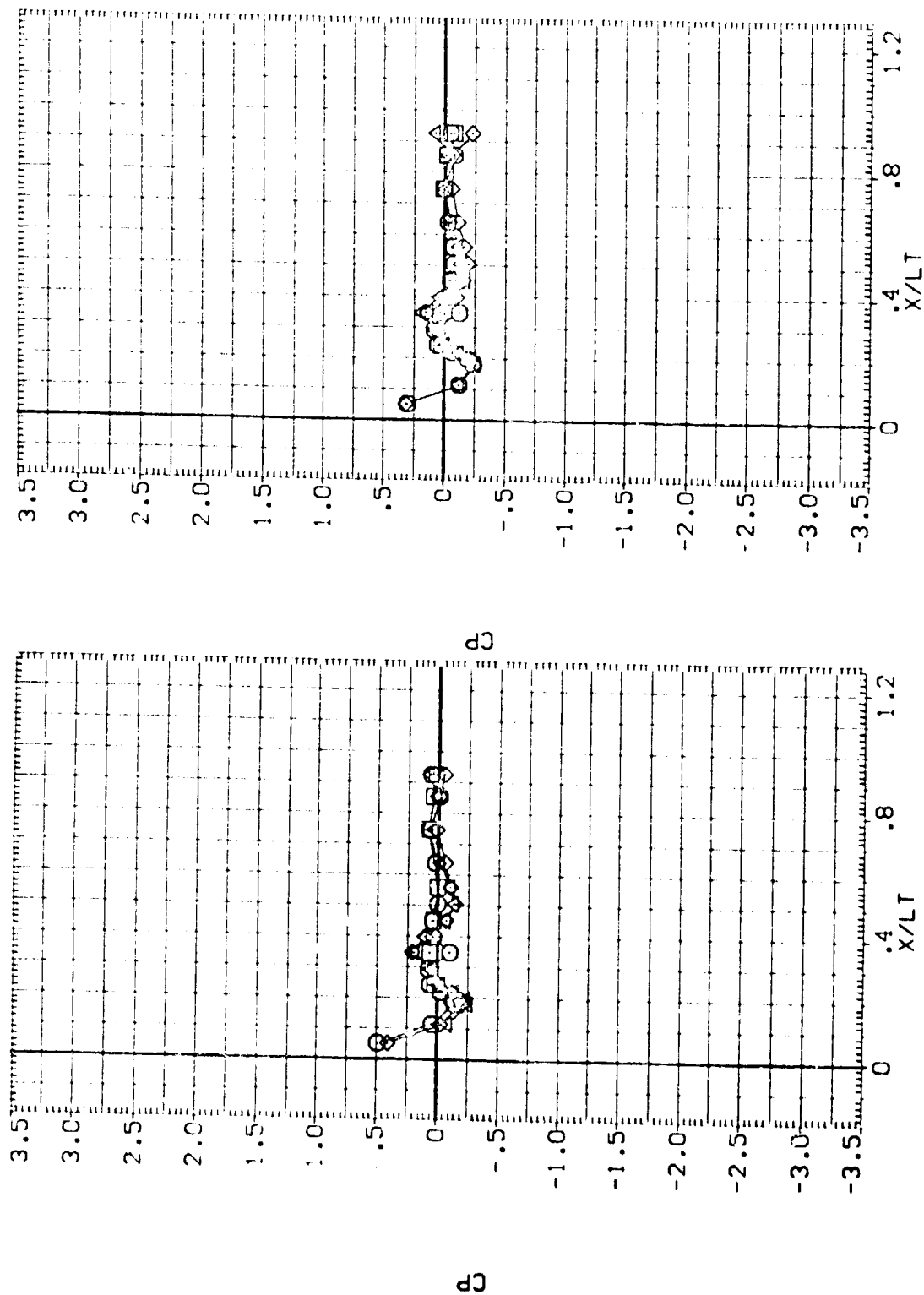
SYMBOL

PHI  
120.000  
135.000  
150.000  
165.000

BETAT  
-8.150  
.000

ALPHAT  
-.490

PARAMETRIC VALUES  
MACH .600 ELEVON .000  
RUDDER .000 SPOBRK .000



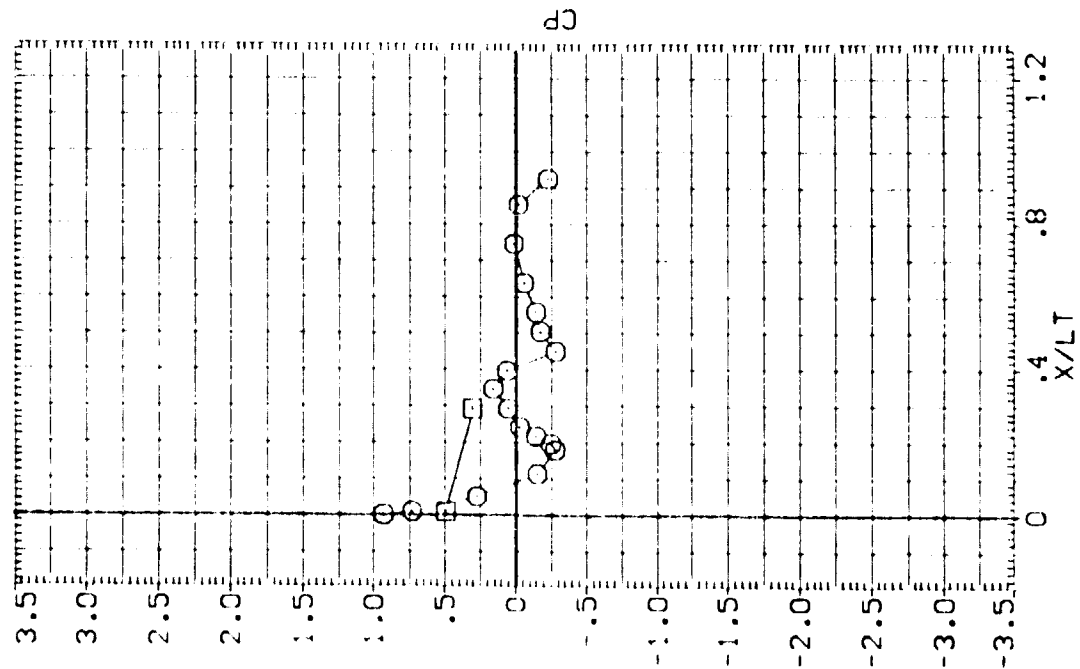
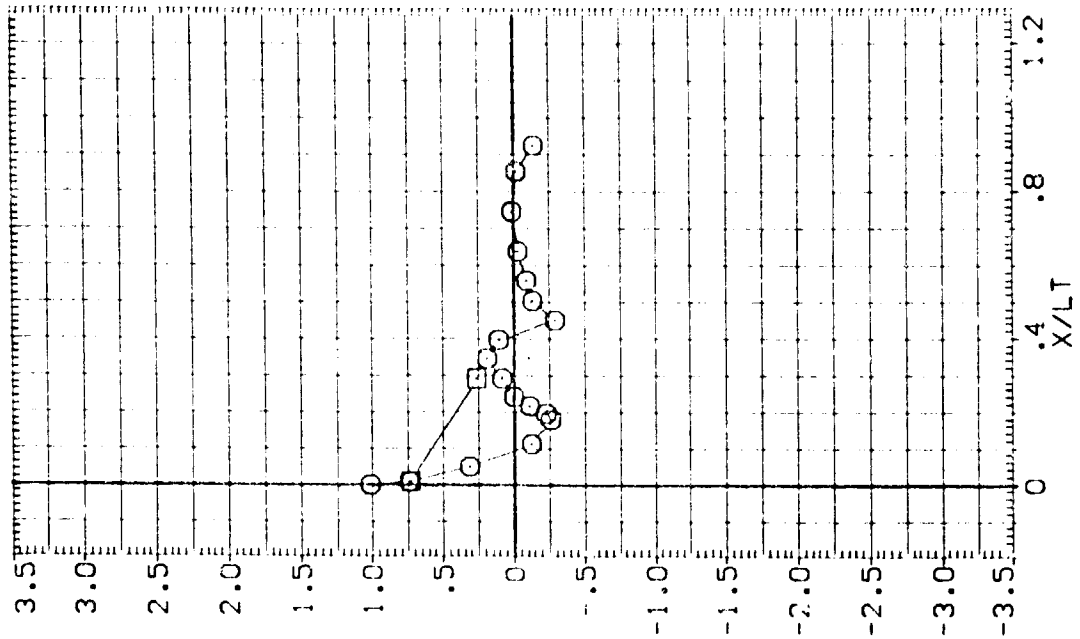
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

# ARC11-716 IA14 01+T12+S:2N25+AT11 EXTERNAL TANK (RB1T34)

SYMBOL  
○  
□

PH: 180.000  
270.000  
BETAT -8.15C  
ALPHA -1.49C

PARAMETRIC VALUES  
MACH .800  
ELEVON .000  
RUDDER .000  
SPOILER .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+112+S12N25+AT11 EXTERNAL TANK (RB1T34)

SYMBOL

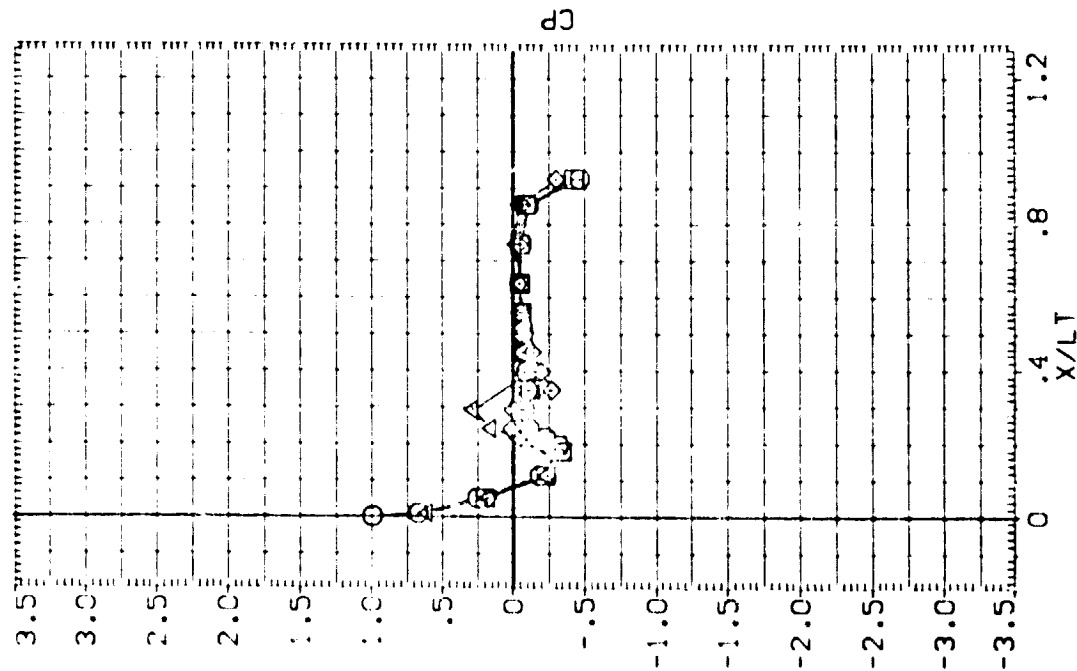
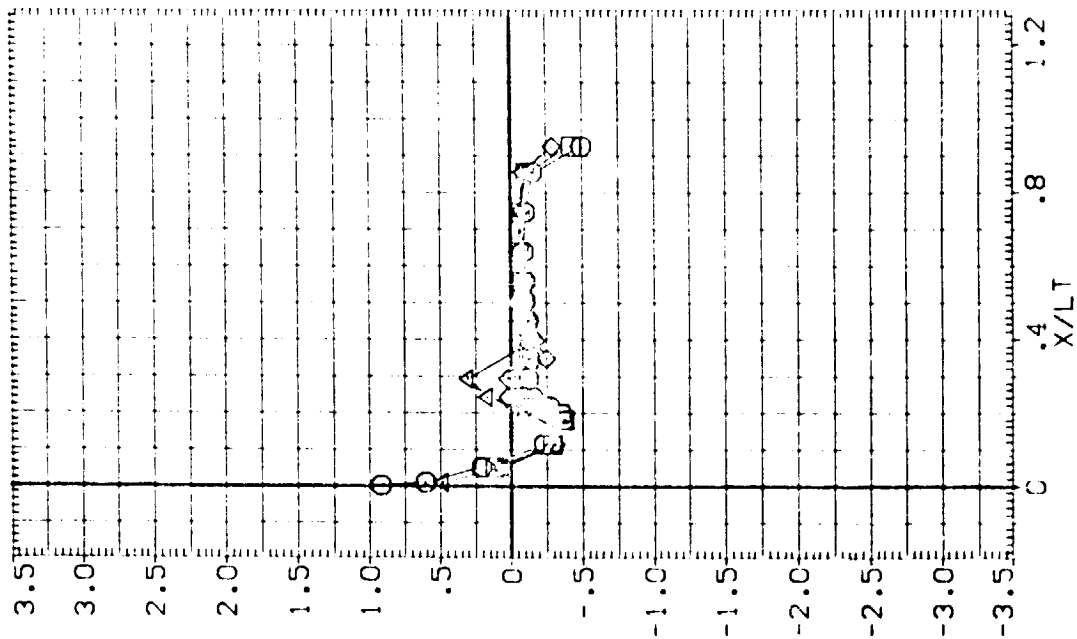
PHI  
0  
30.000  
60.000  
90.000

BETAT  
4.090  
8.150

ALPHAT  
-4.70

PARAMETRIC VALUES

MACH .000  
RUDDER .000  
ELEVON .000  
SPORON .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+112+S12N25+AT11 EXTERNAL TANK (RB1134)

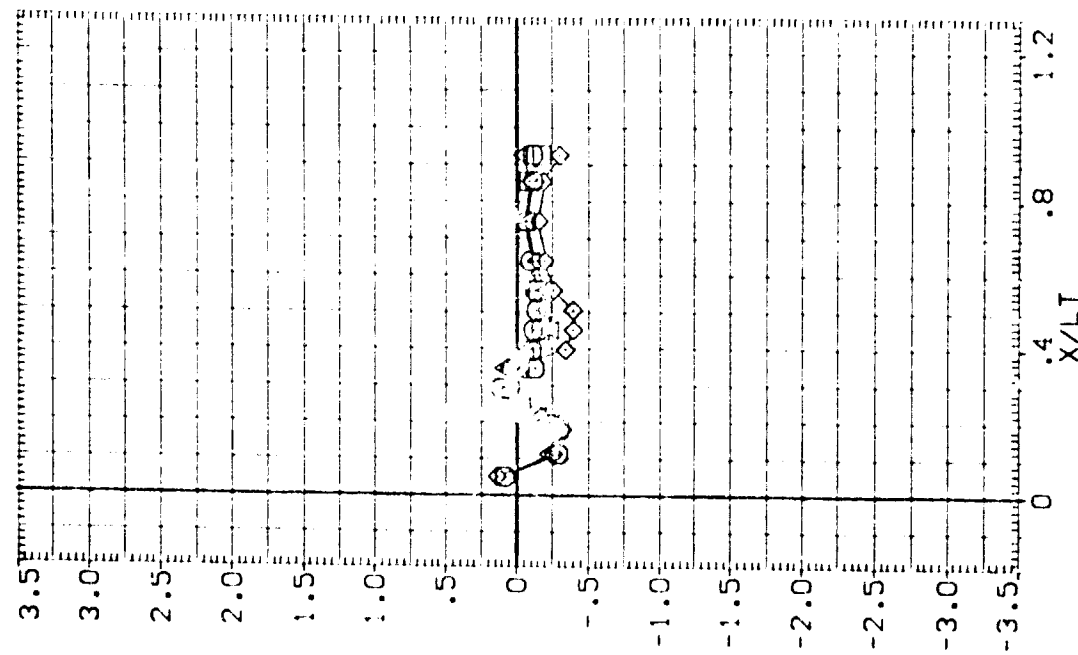
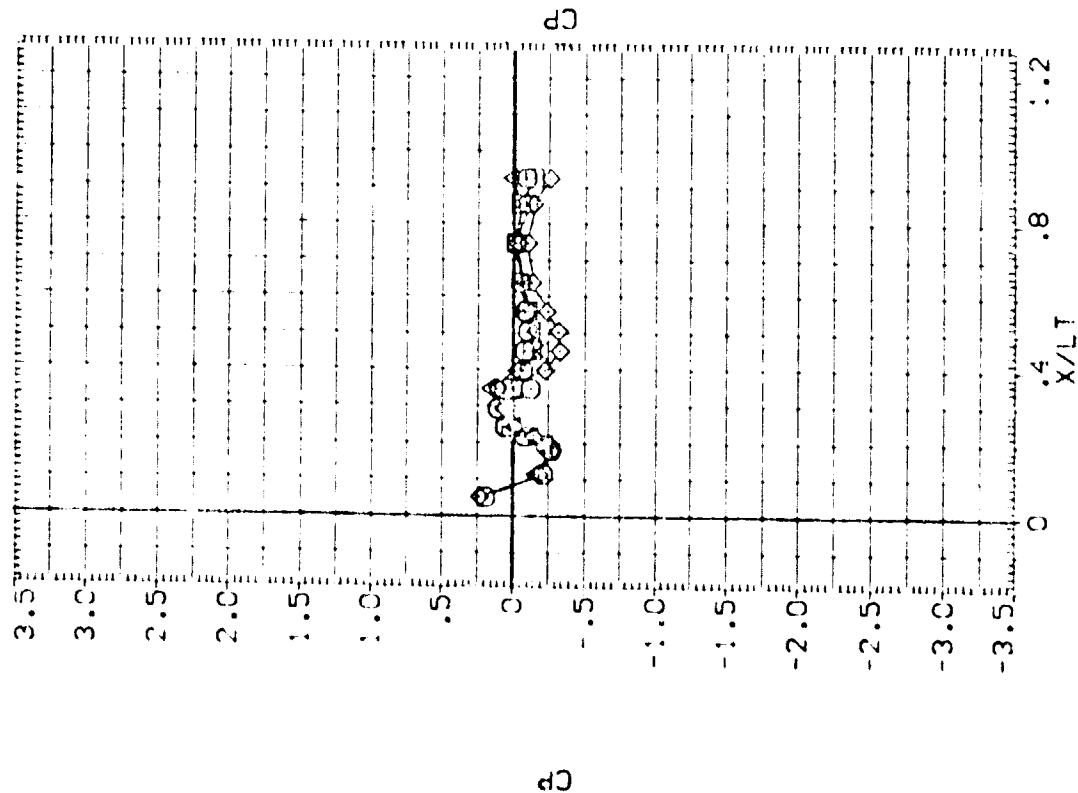
SYMBOL

PH: 170.000  
135.000  
150.000  
165.000

BETAT 4.090  
8.150

ALPHAT -1.470

PARAMETRIC VALUES  
MACH .600 ELEVON .000  
RUDDER .000 SPODBA .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+712+S12+.25+A711 EXTERNAL TANK (R3:134)

SYMBOL  
○  
□

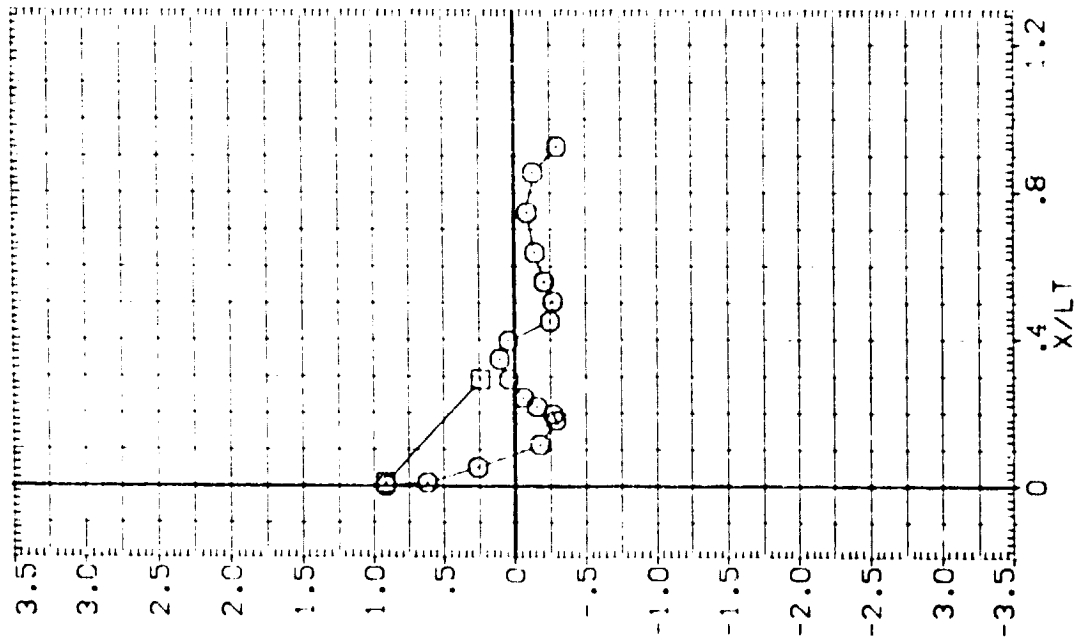
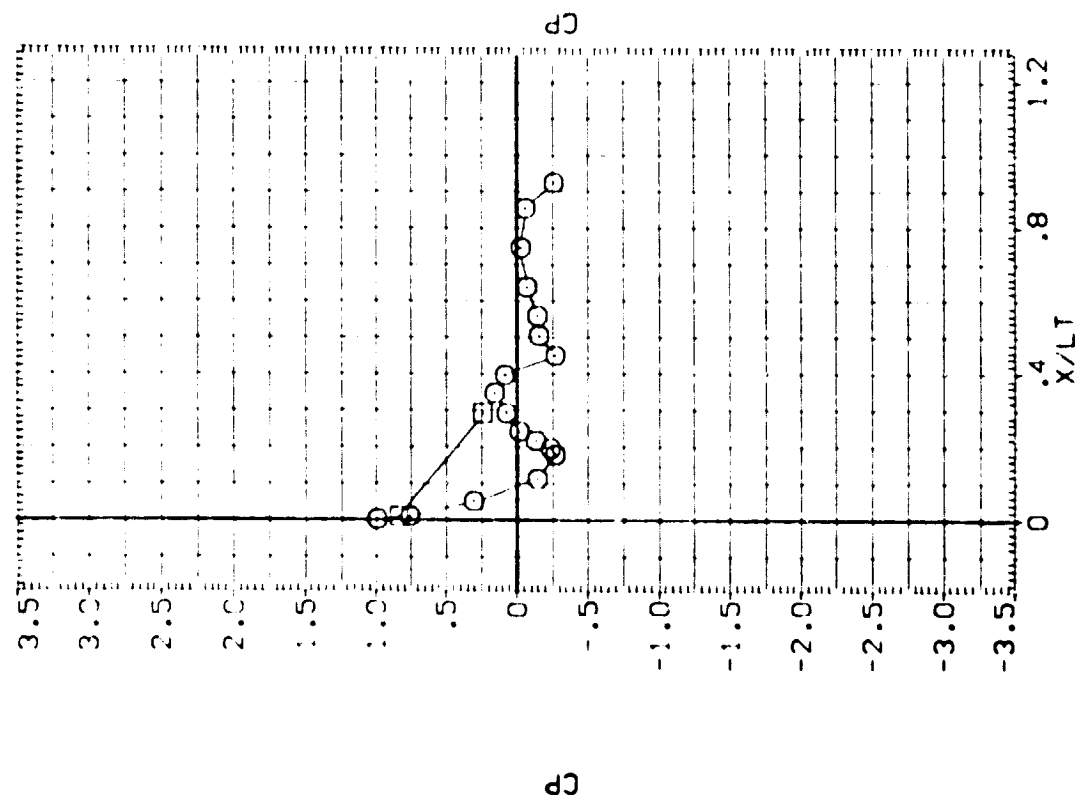
PARAM  
180.000  
270.000

BETAT  
4.090  
8.150

ALPHAT  
-1.470

MAC-  
RLODER

PARAMETRIC VALUES  
.600 ELEVON  
.000 SPOBRK  
.000



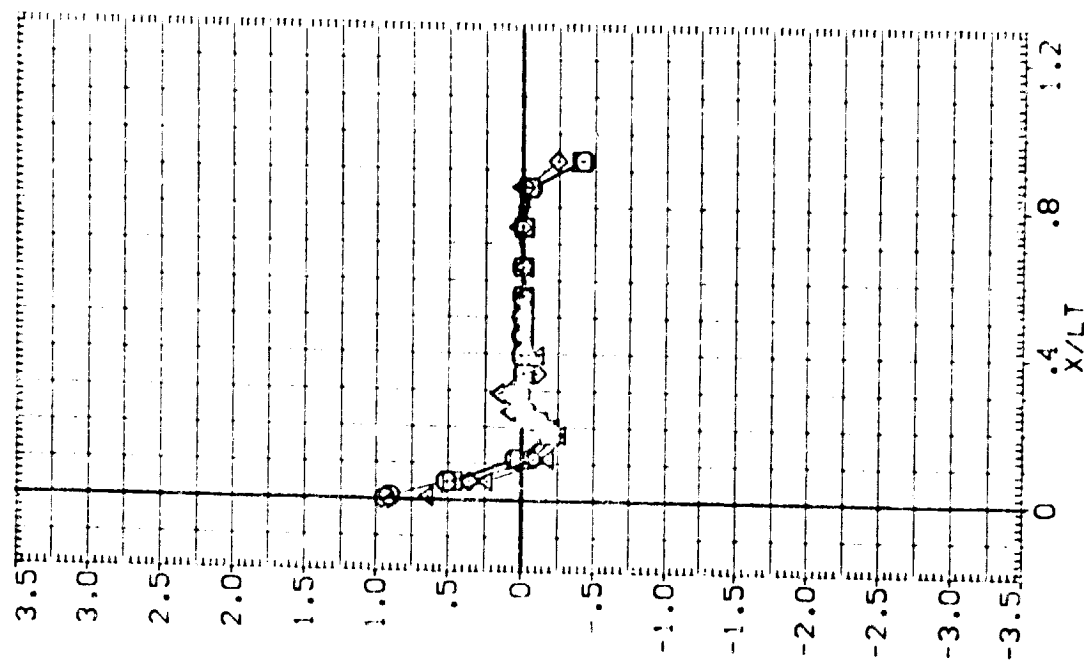
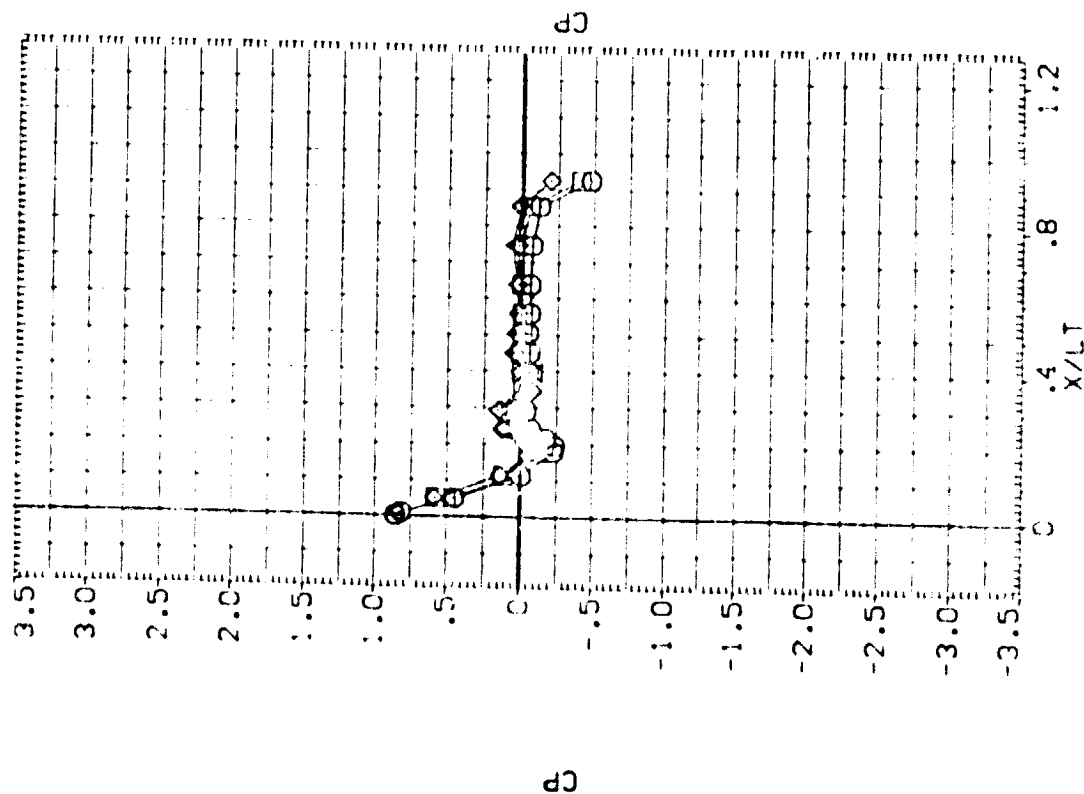
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC:11-16 1A14 01+12+S12N25+AT11 EXTERNAL TANK (RB1134)

SYMBOL

PHI BETAT ALPHAT  
 .000 -8.150 7.940  
 30.000 .010  
 60.000  
 90.000

PARAMETRIC VALUES  
 MACH .600 ELEVON .000  
 RUDDER .000 SPOON .000



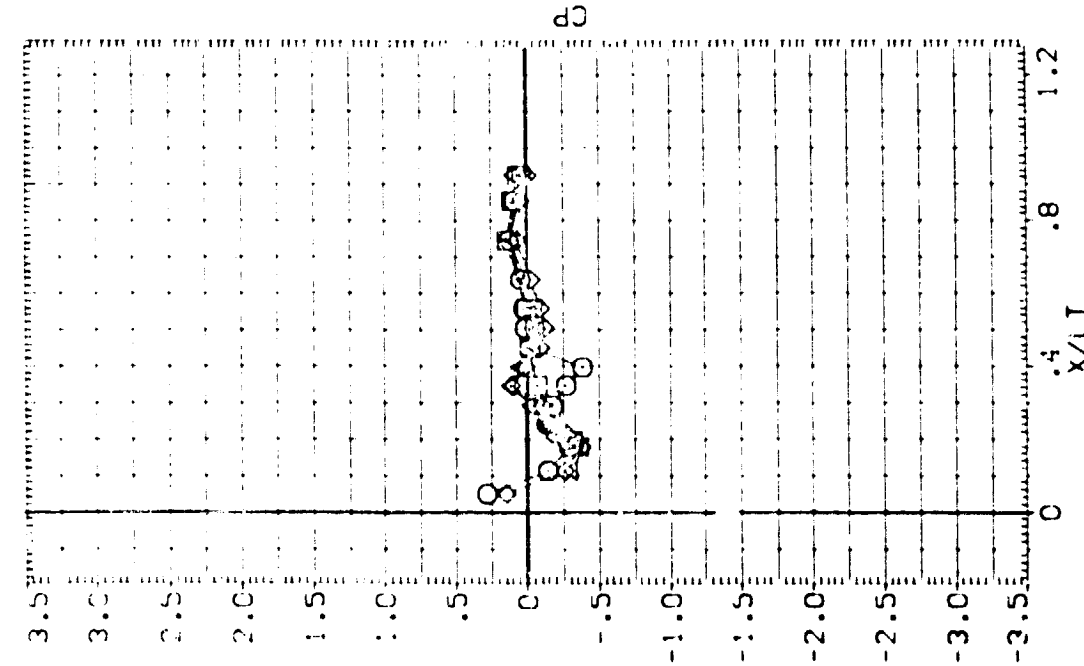
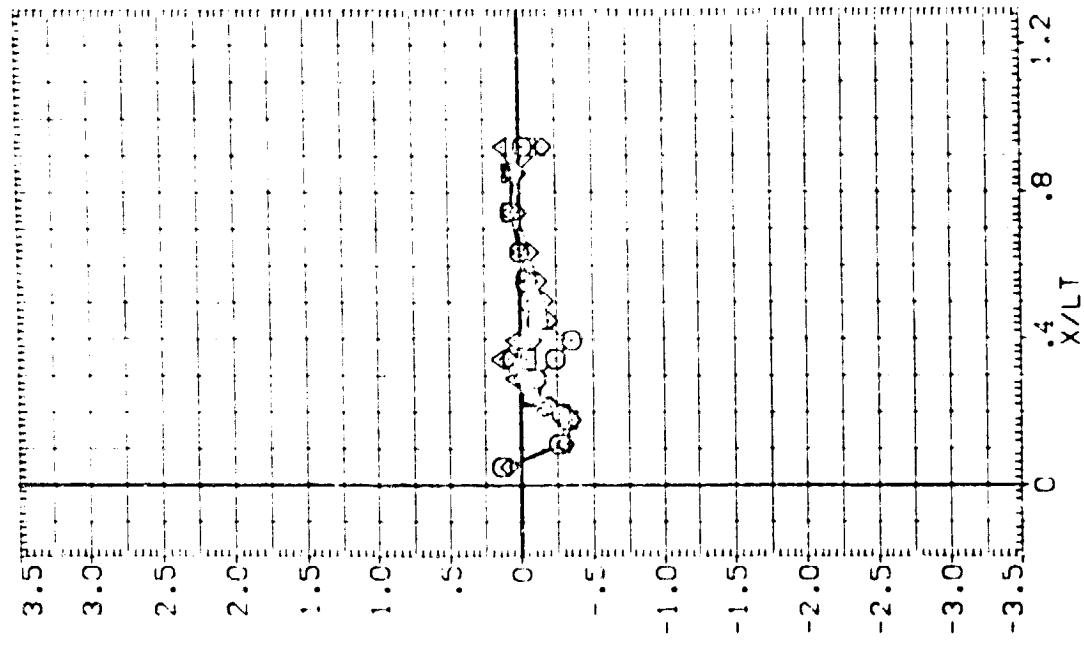
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC:11-716 1A14 01+T12+S12N25+AT11: EXTERNAL TANK (RB1734)

PARAMETRIC VALUES  
 MACH .600 ELEVON .000  
 RUDER .000 SPDRIN .000

BETAT -8.150 ALPHAT 7.940

PH: 170.000  
 136.000  
 150.000  
 165.000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

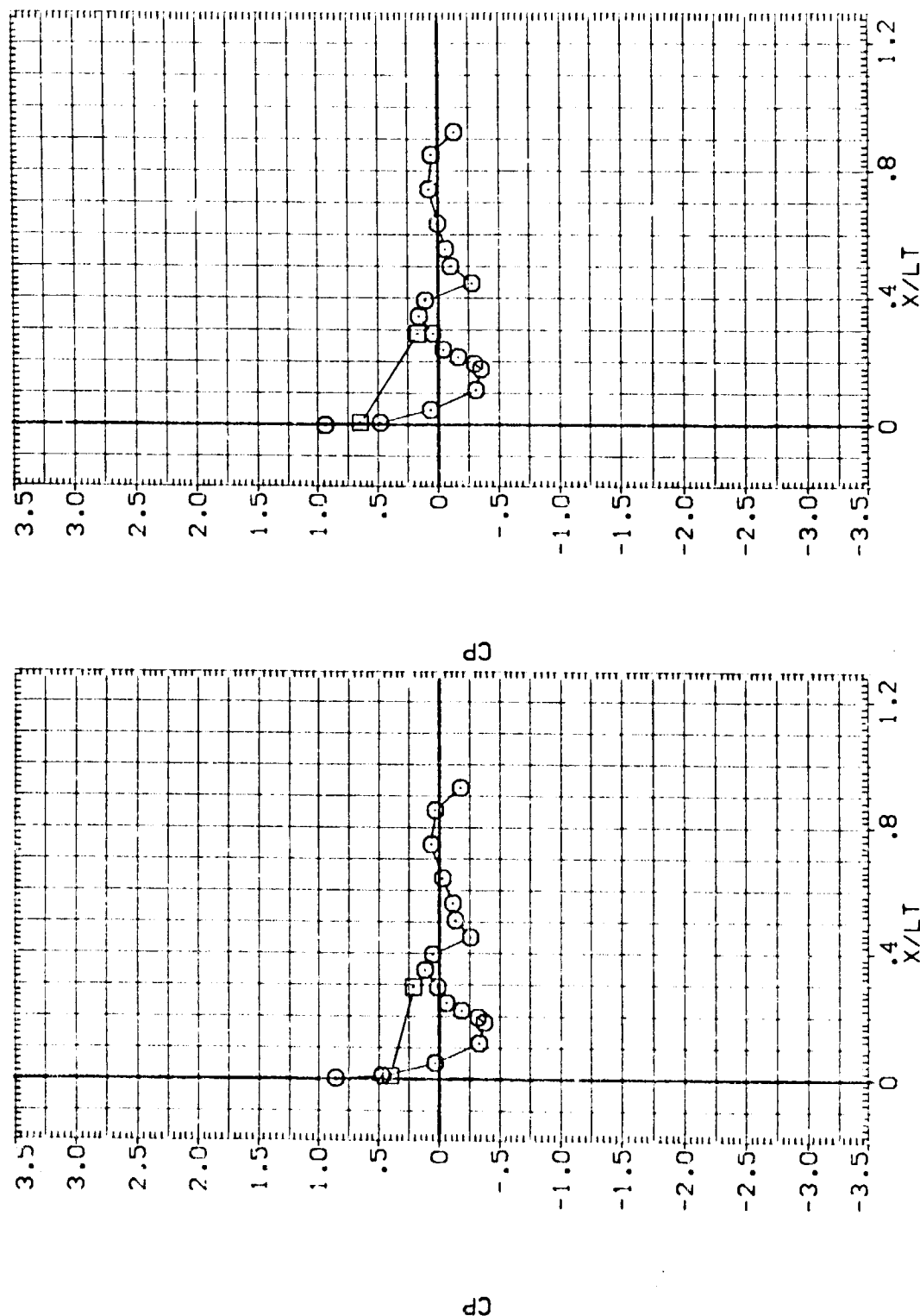


ARC11-716 1A14 01+T12+S12N25+AT11 EXTERNAL TANK (RB1T34)

SYMBOL  
○ □

PHI 180.000  
270.000  
BETAT -8.150  
.010  
ALPHAT 7.940

PARAMETRIC VALUES  
MACH .600  
RUDDER .000  
ELEVON .000  
SPOBRK .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



# ARC:1-716 IA14 01+12+S12N25+AT11 EXTERNAL TANK (RB1134)

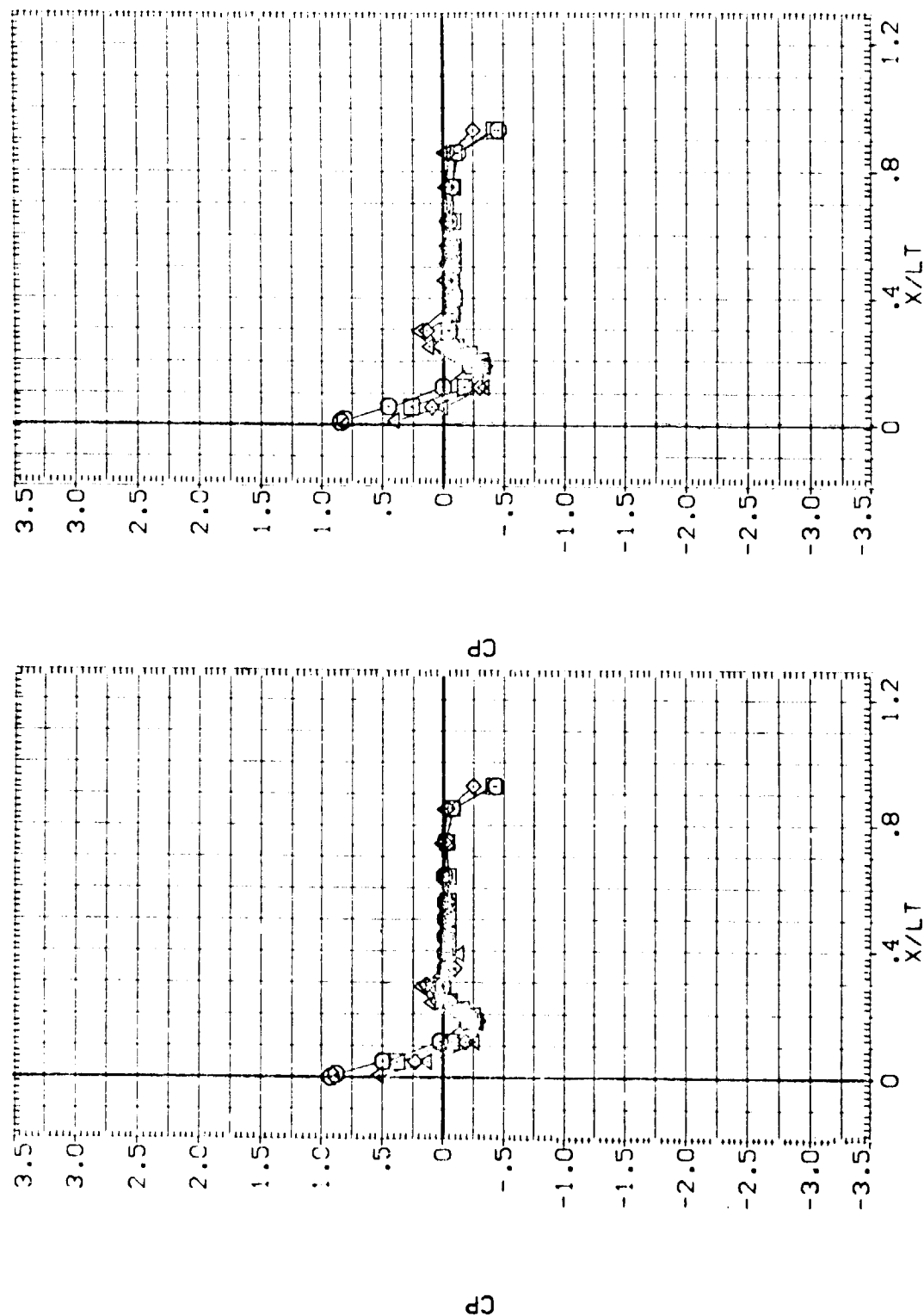
SYMBOL  
 ○  
 ◇  
 △

PHI .000  
 30.000  
 60.000  
 90.000

BETAT 4.120  
 8.240

ALPHAT 7.970

PARAMETRIC VALUES  
 MACH .000  
 RUDDER .000  
 ELEVON .000  
 SPOBRK .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 EXTERNAL TANK (RB134)

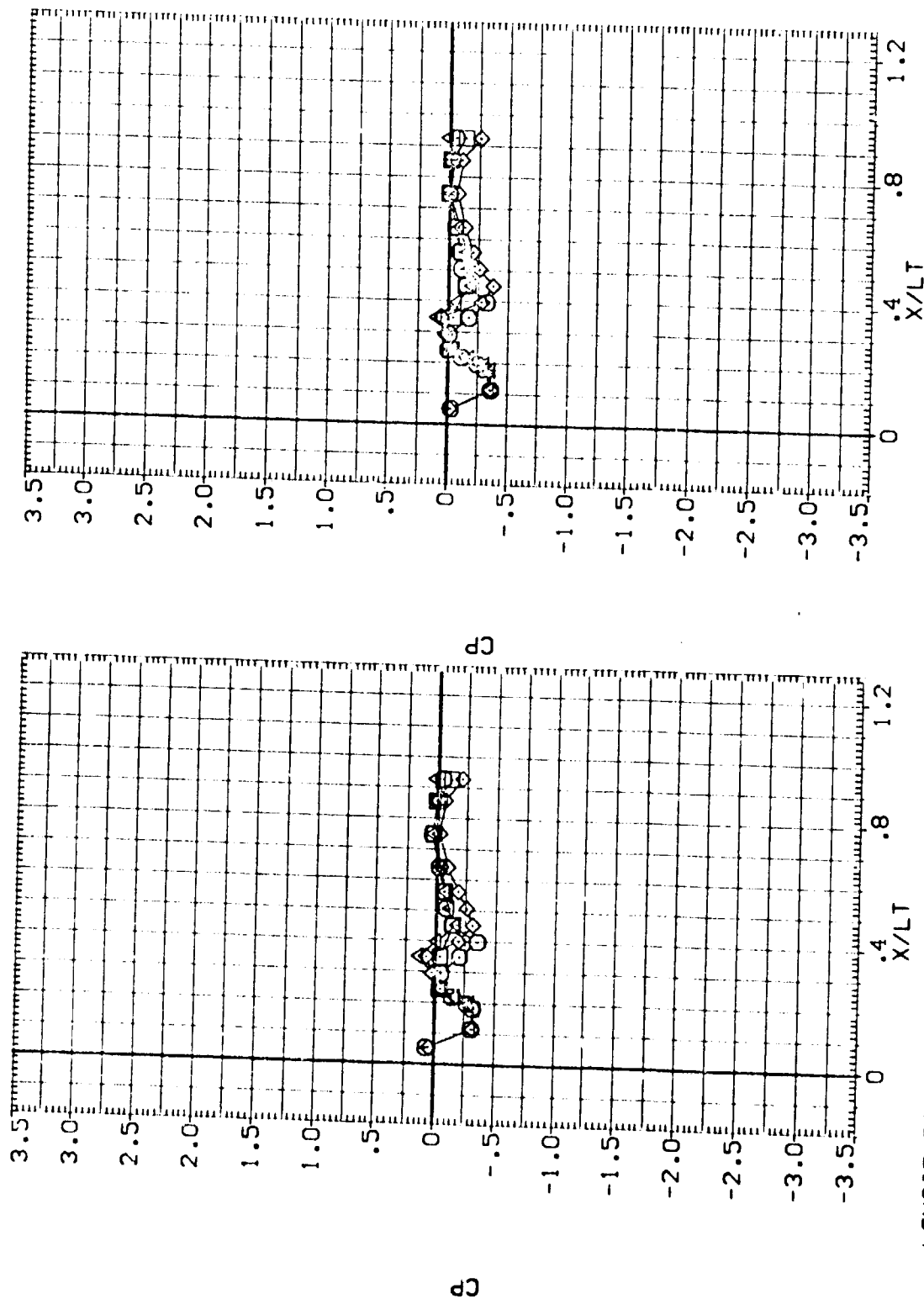
SYMBOL  
 O □ ◇ △

PHI  
 120.000  
 135.000  
 150.000  
 165.000

BETAT  
 4.120  
 8.240

ALPHAT  
 7.970

PARAMETRIC VALUES  
 MACH .600  
 RUDDER .000  
 ELEVON .000  
 SPOBRK .000

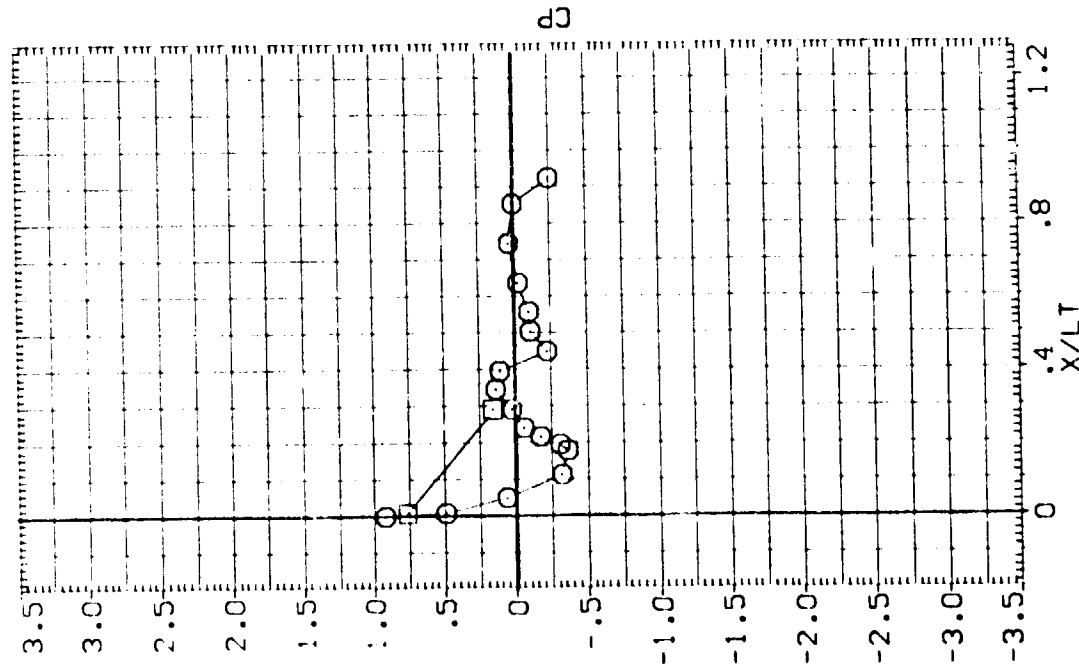
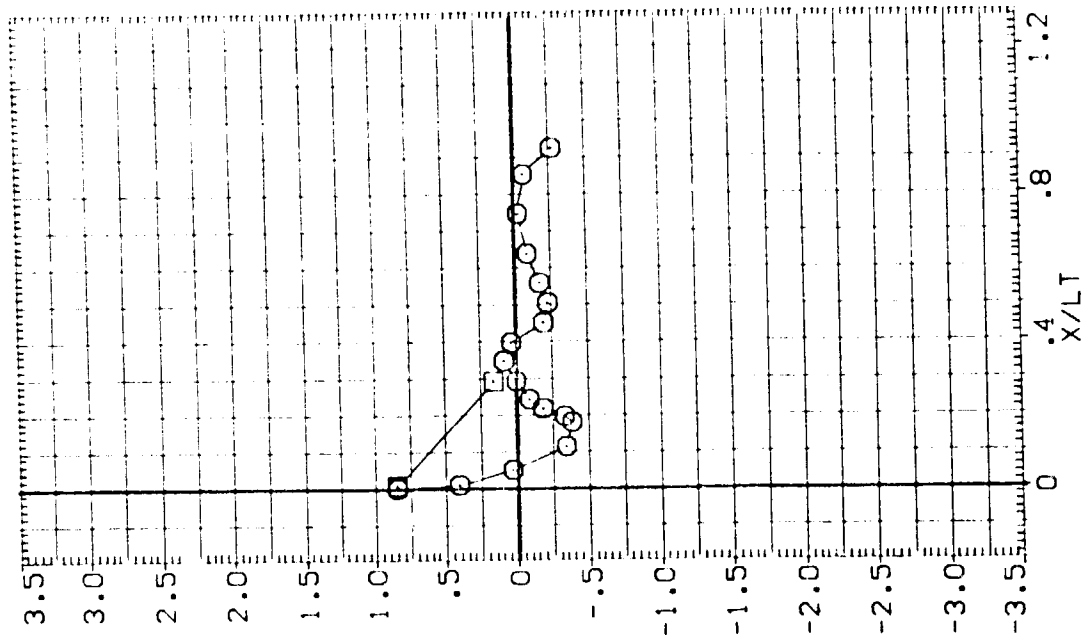


LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 EXTERNAL TANK (RB1T34)

PARAMETRIC VALUES  
MACH .000  
ELEVON .000  
RUDDER .000

PHI 180.000  
BETAT 4.120  
ALPHAT 7.970  
270.000 8.240



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 EXTERNAL TANK (RB1T38)

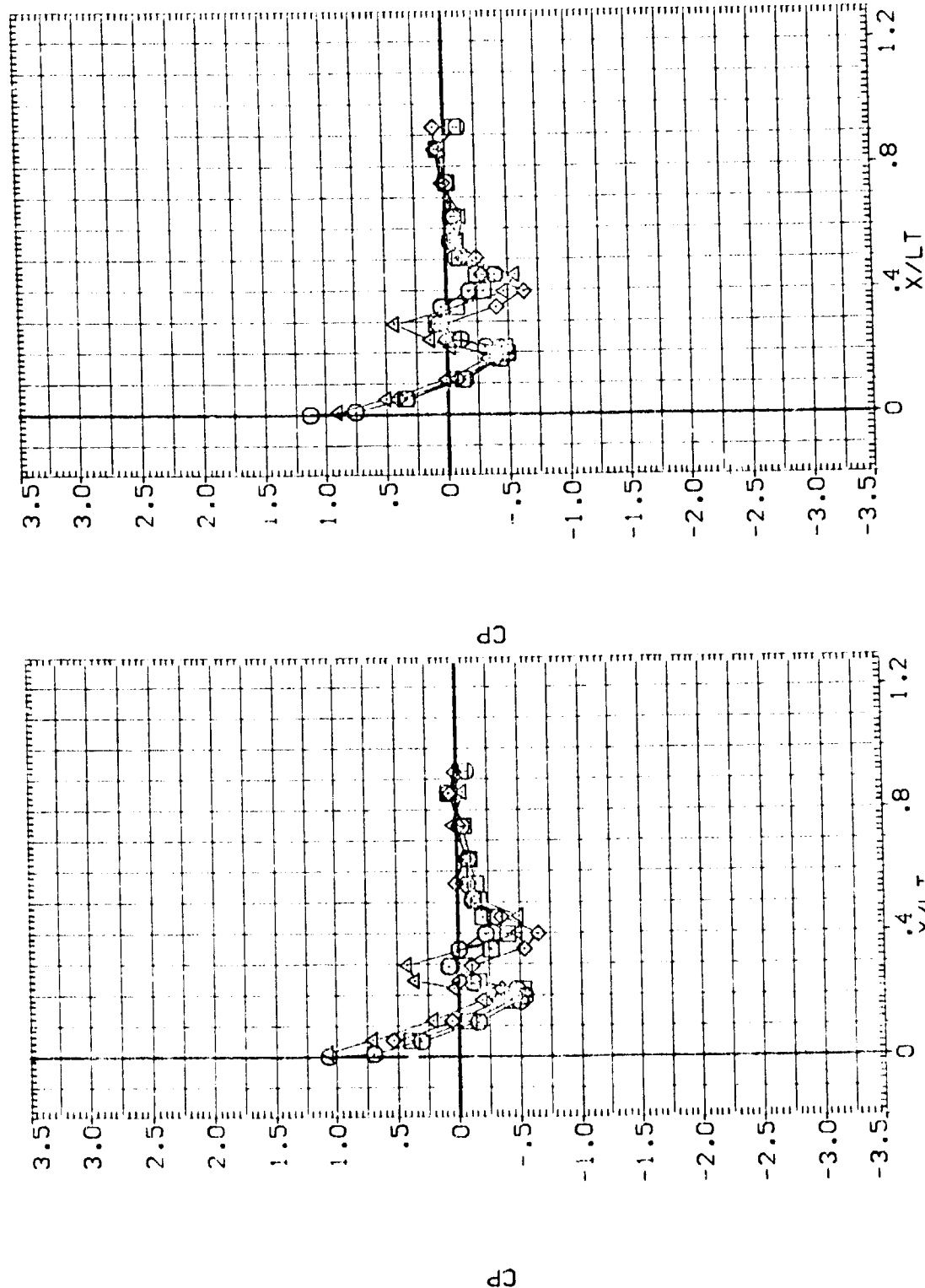
SYMBOL  
 ○ □ ◇ △

PHI  
 .000  
 30.000  
 60.000  
 90.000

BETAT  
 -8.150  
 .000

ALPHAT  
 -8.600

PARAMETRIC VALUES  
 MACH  
 RUDDER  
 ELEVON  
 SPOBRK  
 .000  
 .000  
 .000  
 .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

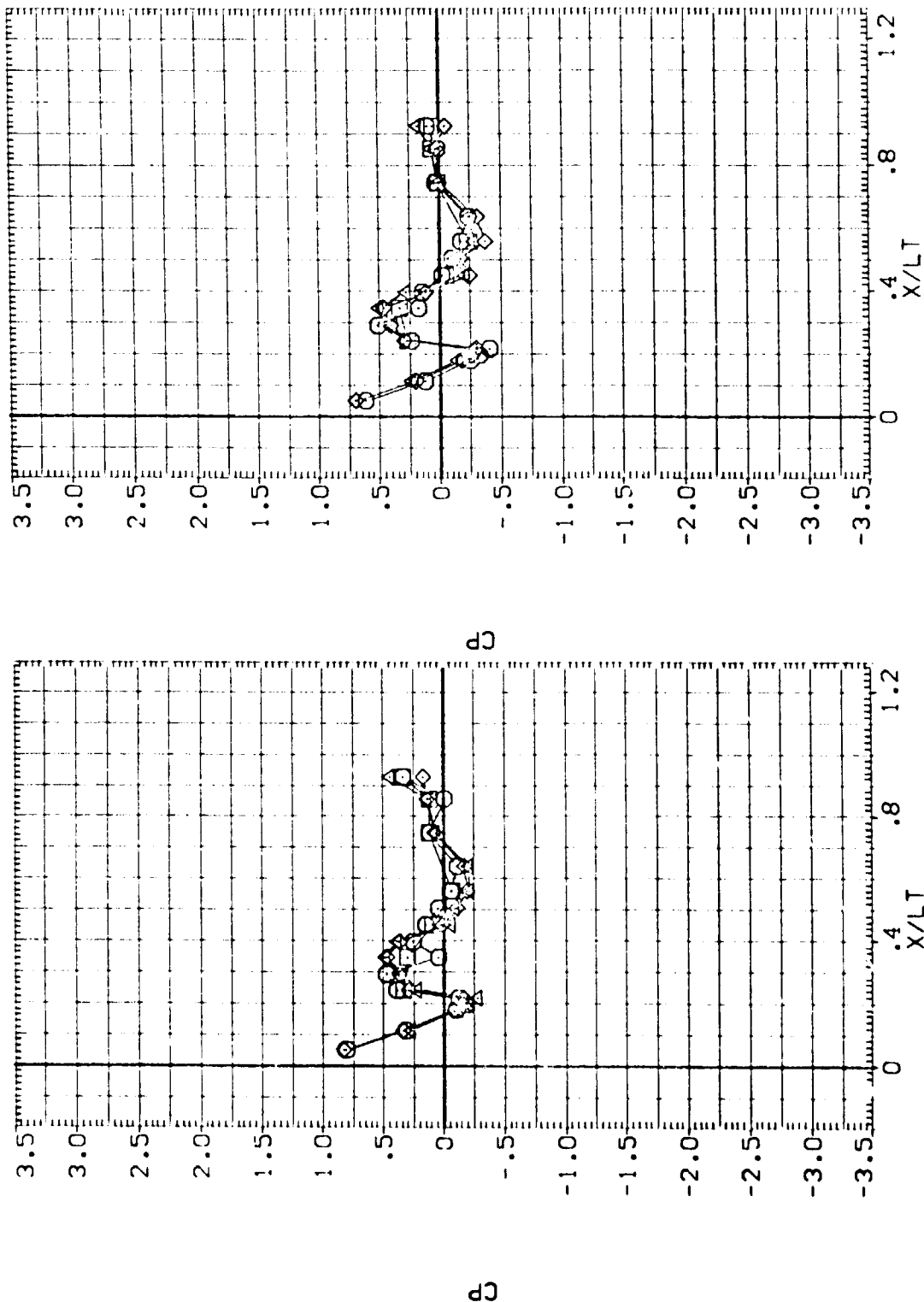
SYMBOL  
 ○  
 □  
 ◇  
 △

CHI 120.000  
 135.000  
 150.000  
 165.000

BETAT -8.150  
 .000

ALPHAT -8.600

PARAMETRIC VALUES  
 MACH 1.050  
 RUDDER .000  
 ELEVON .000  
 SPOBRK .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 IA:4 01:T:2+S12N25+AT11: EXTERNAL TANK (RB1T38)

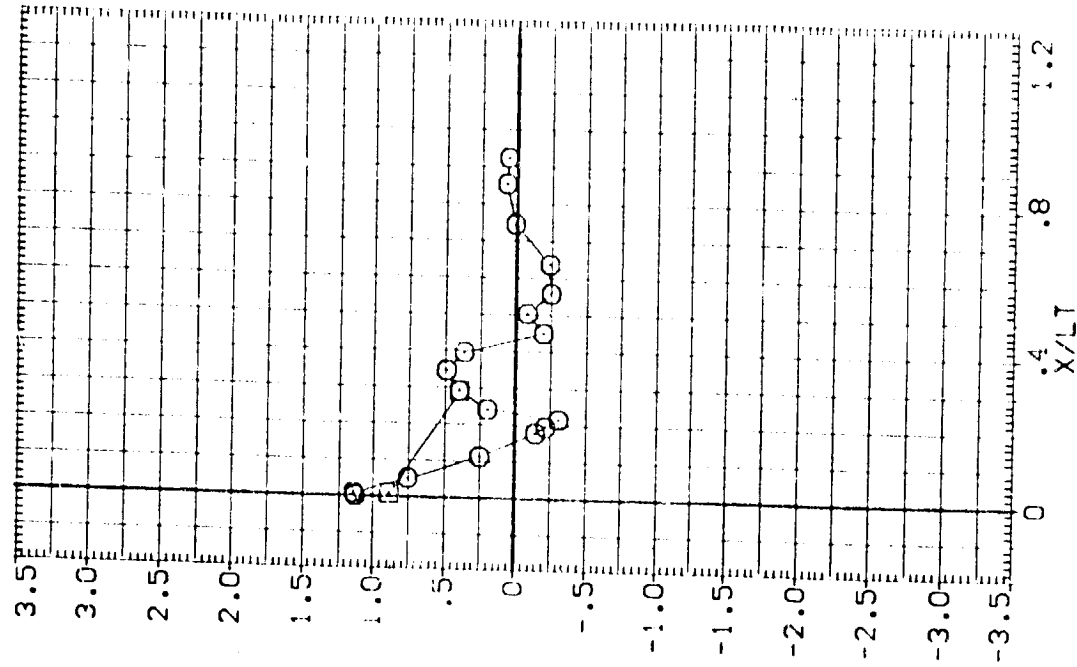
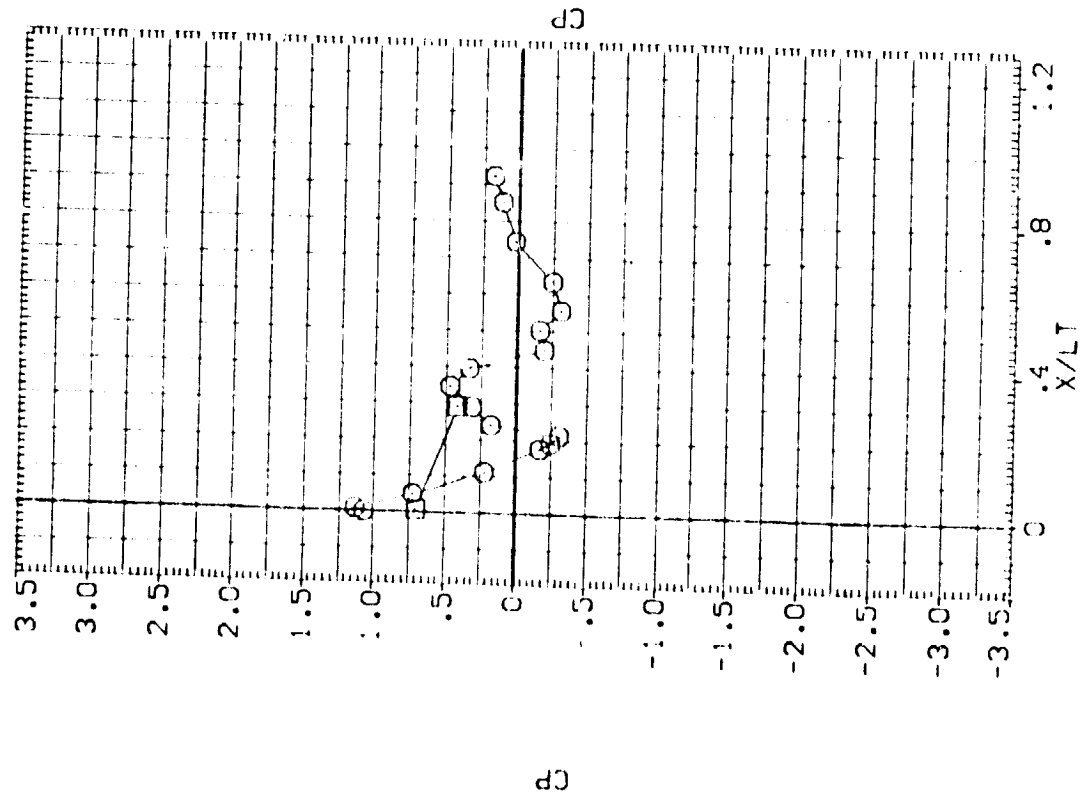
SYMBOL

PHI  
180.000  
270.000

BETAT  
-8.150  
.000

ALPHAT  
-8.600

PARAMETRIC VALUES  
MACH 1.050  
RUDDER .000  
ELEVON .000  
SPDBRK .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 IA14 01+I12+S12N25+AT11 EXTERNAL TANK (RB1138)

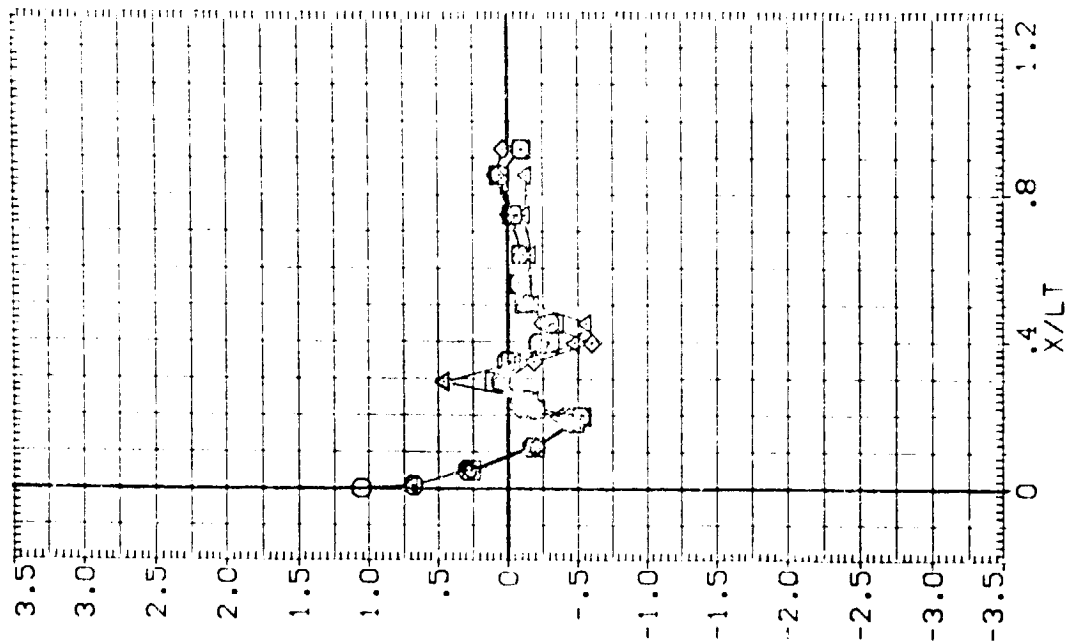
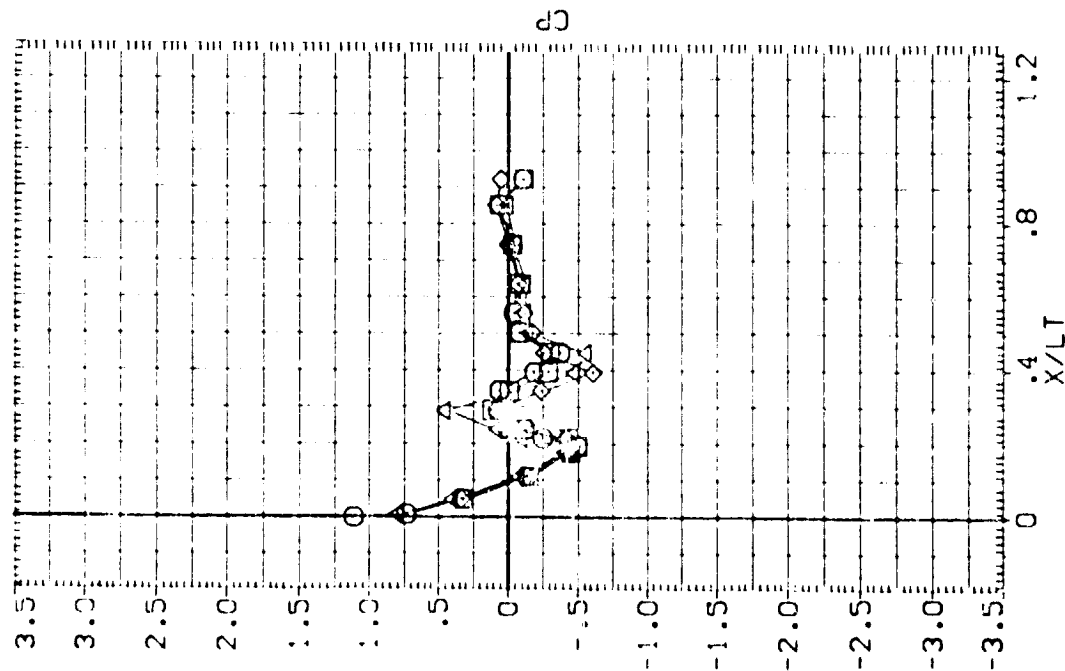
SYMBOL

PHI  
0.000  
30.000  
60.000  
90.000

BETAT  
4.120  
8.200

ALPHAT  
-8.570

PARAMETRIC VALUES  
MACH 1.050  
RUDDER .000  
ELEVON .000  
SPDR .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+112+S12N25+AT11 EXTERNAL TANK (RB1138)

SYMBOL

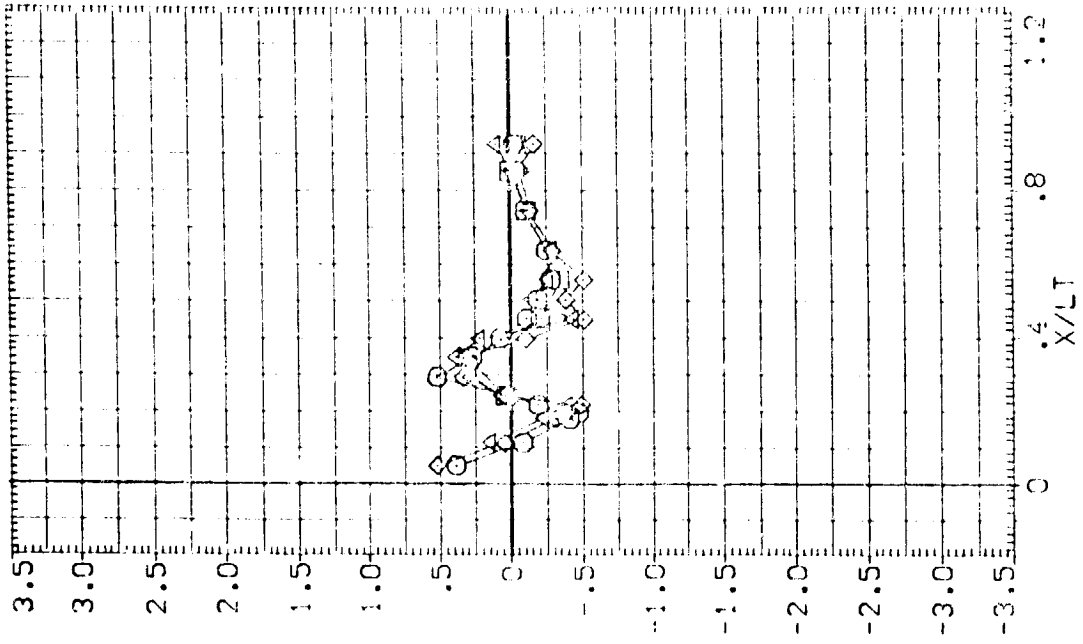
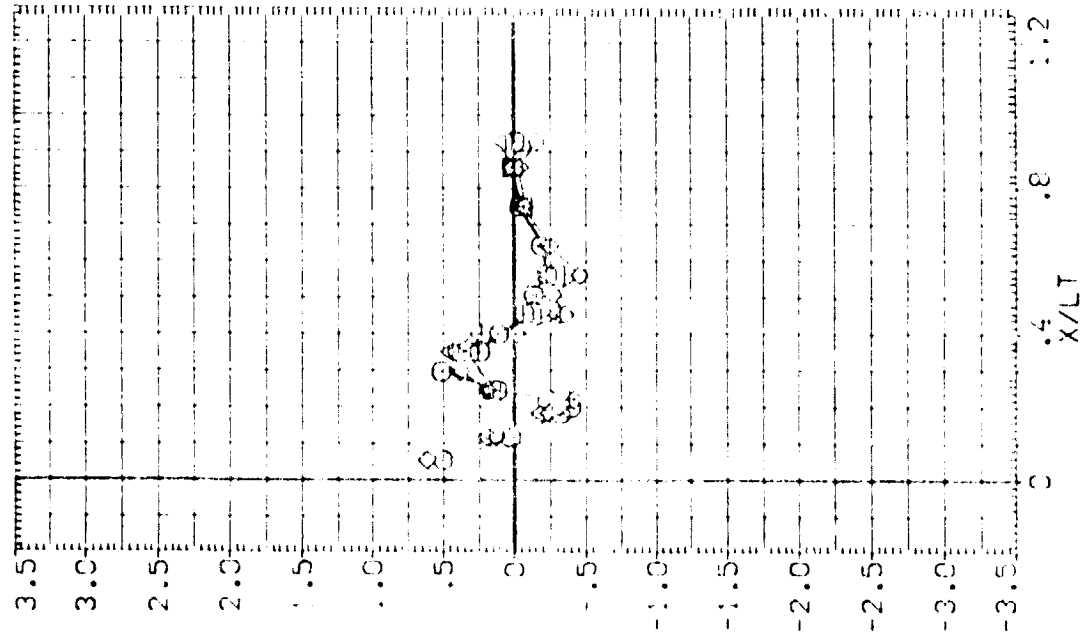
120.000  
135.000  
150.000  
165.000

BET 4.120  
8.200

ALP 1.0  
-8.5

PARAMETRIC VALUES

MACH 1.050  
RUDDER .000  
ELEVON .000  
SPDBOX .000

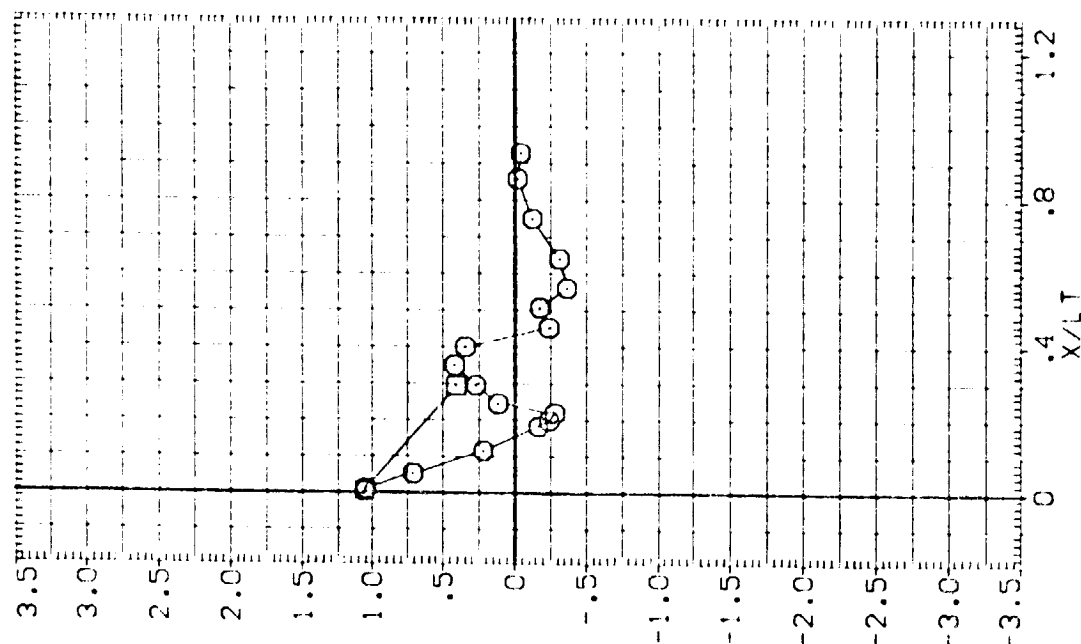
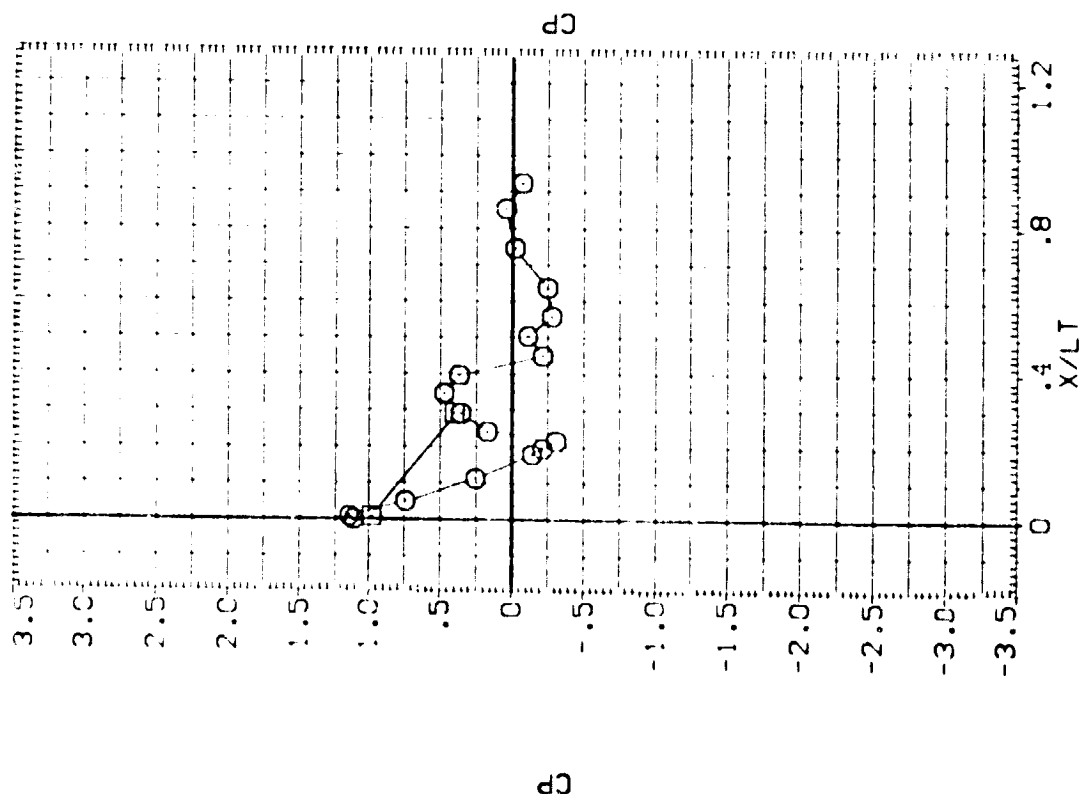


LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



ARC11-716 1A14 01+12+S12N25+AT11 EXTERNAL TANK (R31T38)

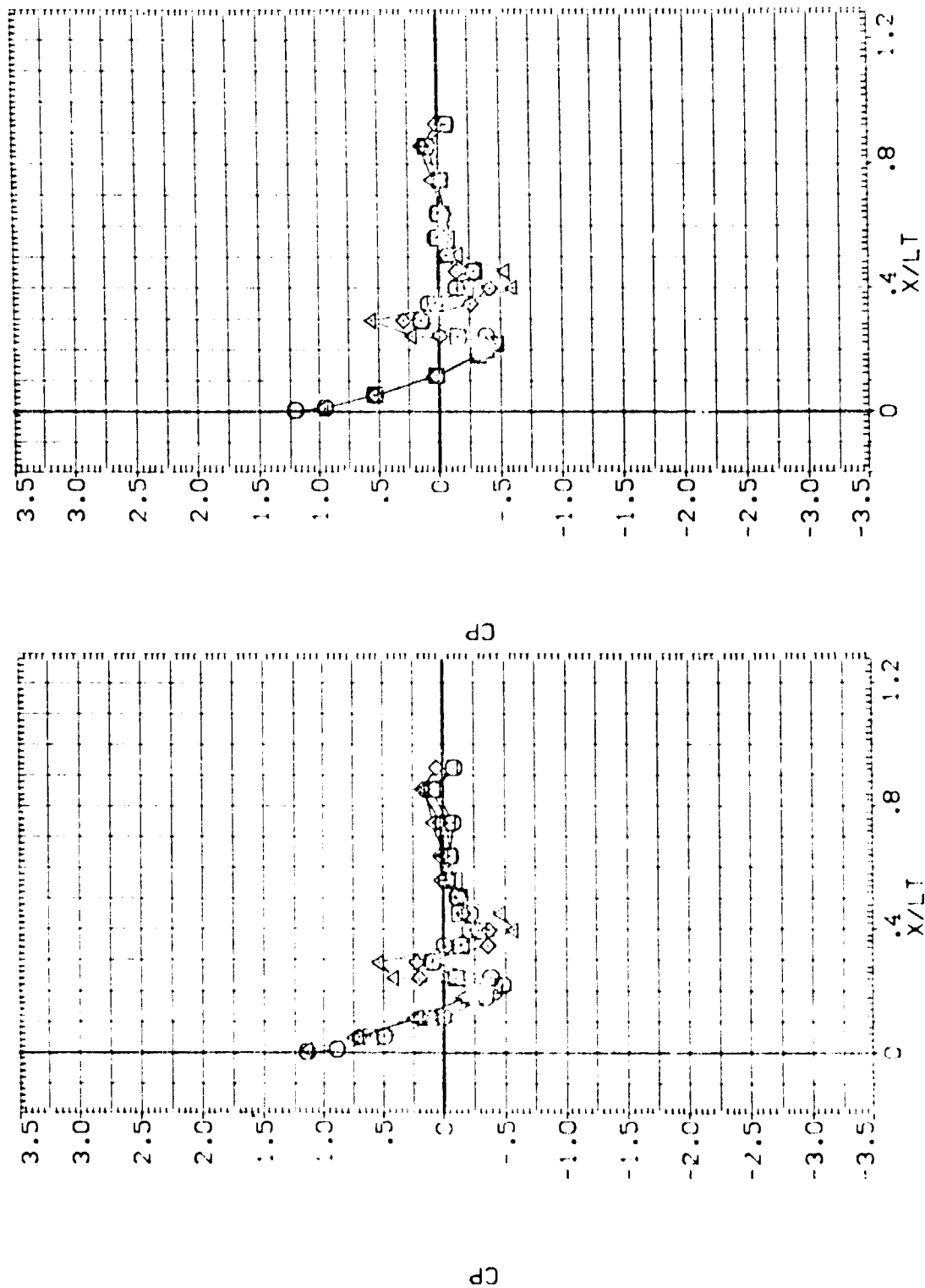
SYMBOL	PHI	BTAT	ALPHAT	MACH	PARAMETRIC VALUES
○	180.000	4.120	-8.570	RODGER	1.050 ELEVON
○	270.000	8.200			.000 SPGRK
					.000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

# ARC11-716 1A:4 01+Y12+S 2N25+AT11 EXTERNAL TANK (R81T38)

SYMBOL	PHI	BETA	ALPHA	PARAMETRIC VALUES
○	.000	-8.170	-.540	MACH 1.050 ELEVON .000
□	30.000	.000		RUDER .000
◇	60.000			
△	90.000			



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-016 1A14 01+T12+S12N25+AT11 EXTERNAL TANK (RB1138)

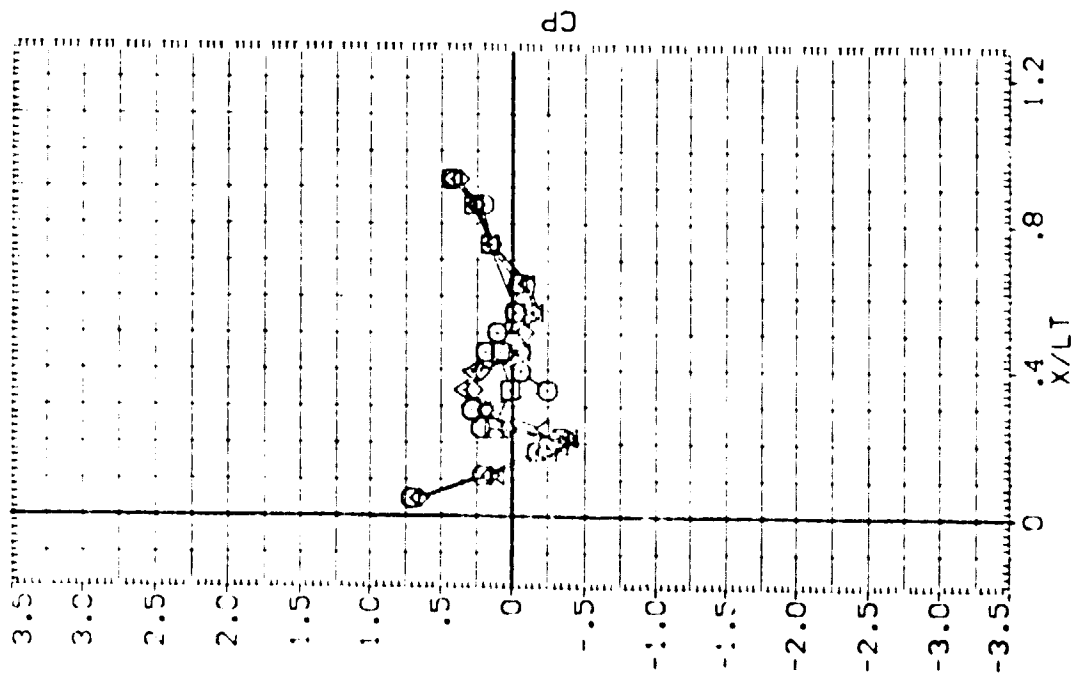
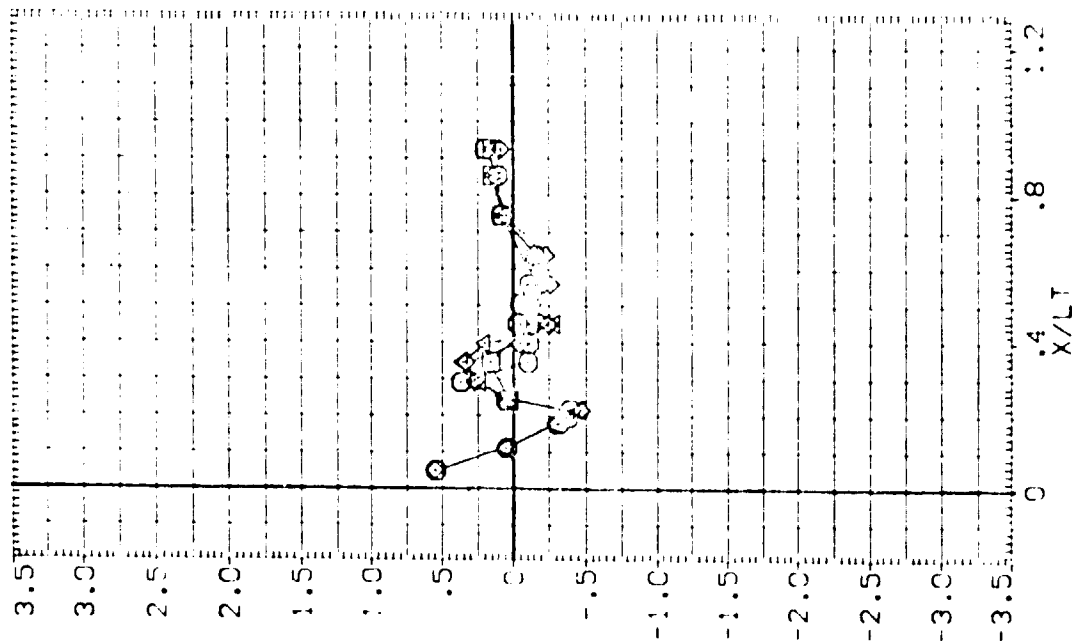
SYMBOL

PA1  
120.000  
135.000  
150.000  
165.000

BETAT  
-8.170  
.000

ALPHA1  
-1.540

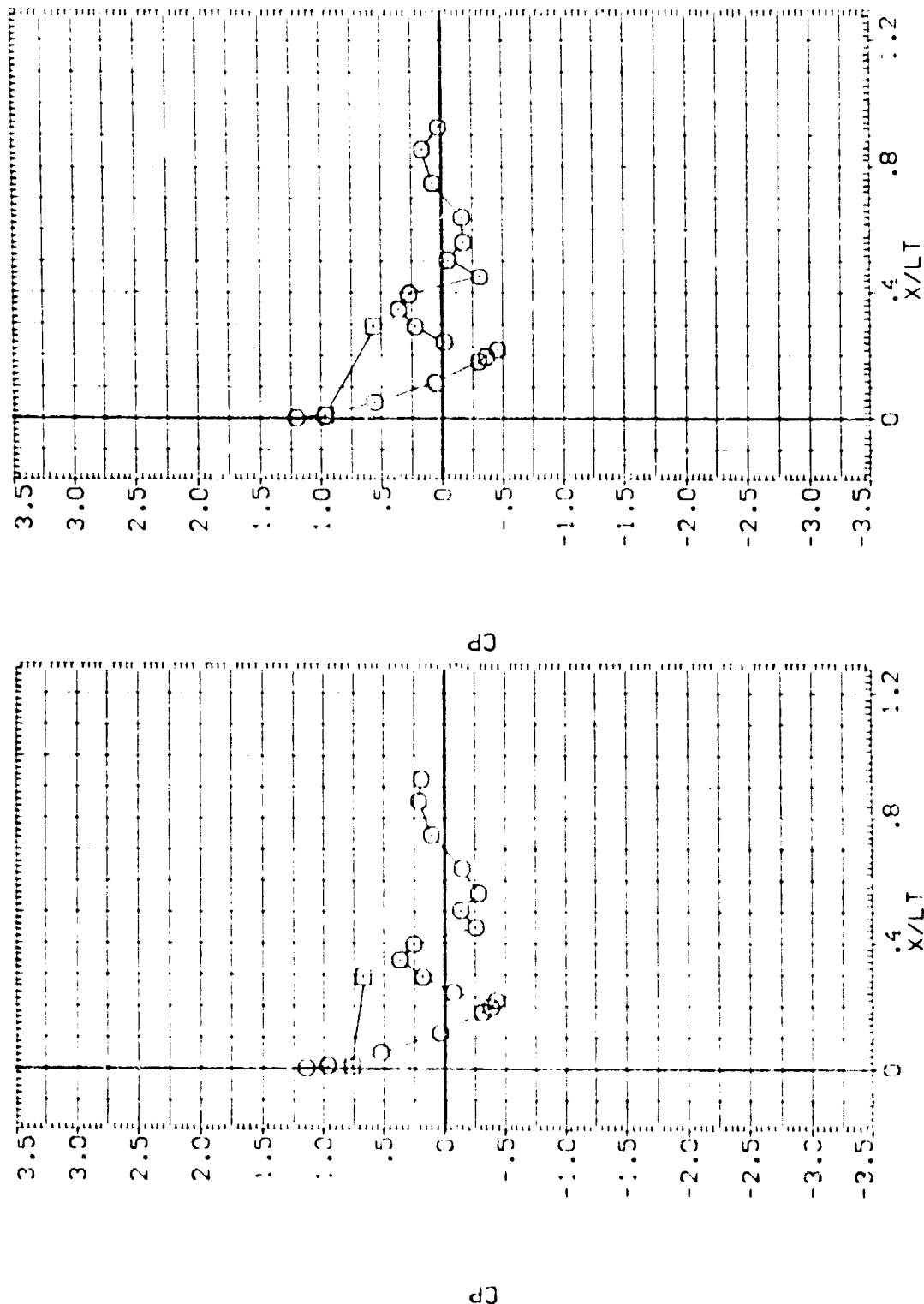
PARAMETRIC VALUES  
MACH 1.050  
ELEVON .000  
RUDDER .000  
SPC38A .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC:11-716 1A14 01+712+S12N25+AT11 EXTERNAL TANK (RB1T38)

SYMBOL	PHI	BETAT	ALPHA	MACH	ELEVON	SPOR
○	180.000	-8.170	-1.540	.000	.000	.000
□	270.000	.000		.000	.000	.000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

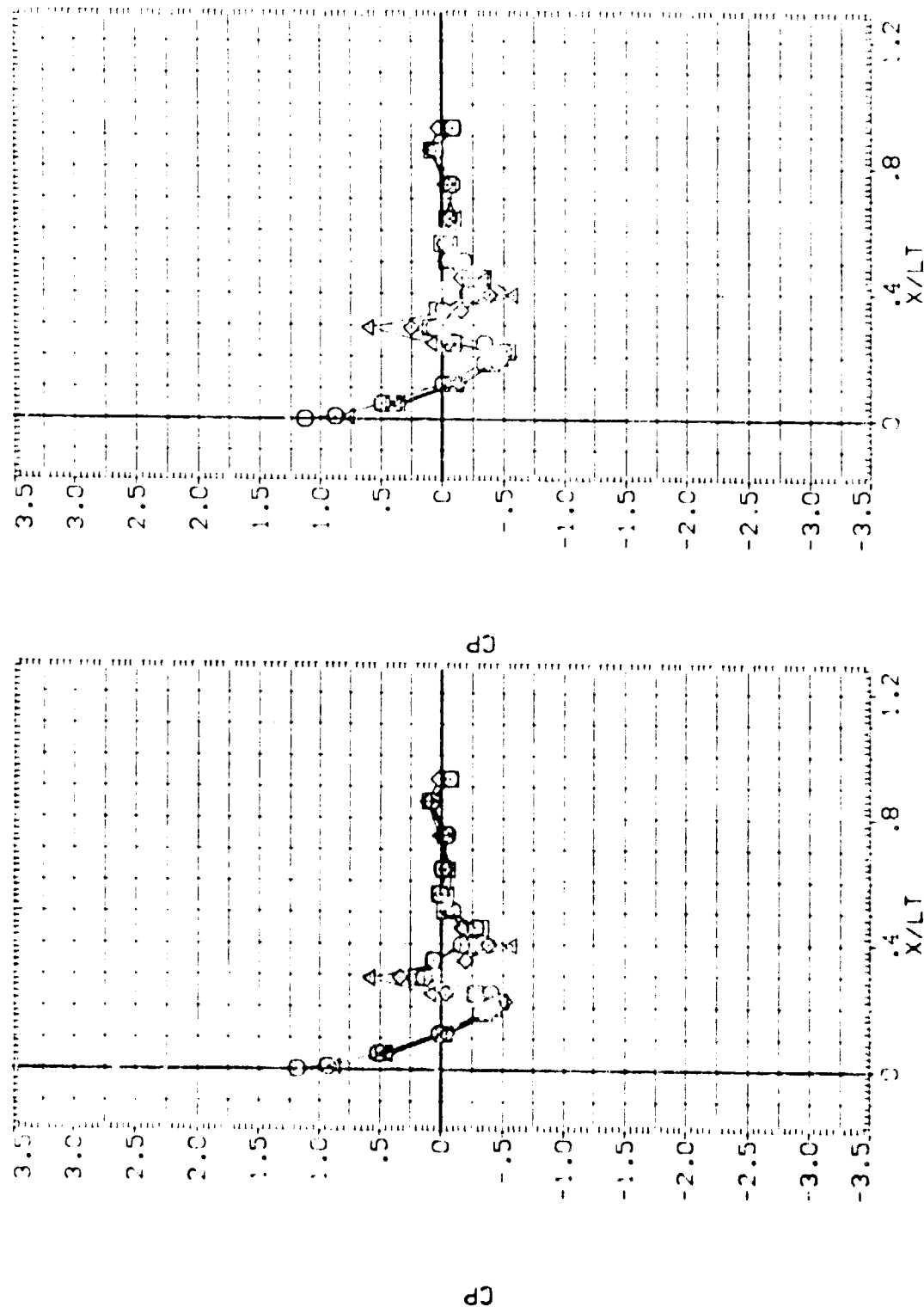
4RC11-716 1A14 01712+S12A25+A11. EXTERNAL TANK (RB1738)

SYMBOL

0  
30,000  
60,000  
90,000

BETAT ALPHAT  
4.100 -1.520  
8.180

PARAMETRIC VALUES  
MACH 1.050 ELEVON .000  
RUDER .000 SPDRON .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+712+S12N25+AT11 EXTERNAL TANK (RB1138)

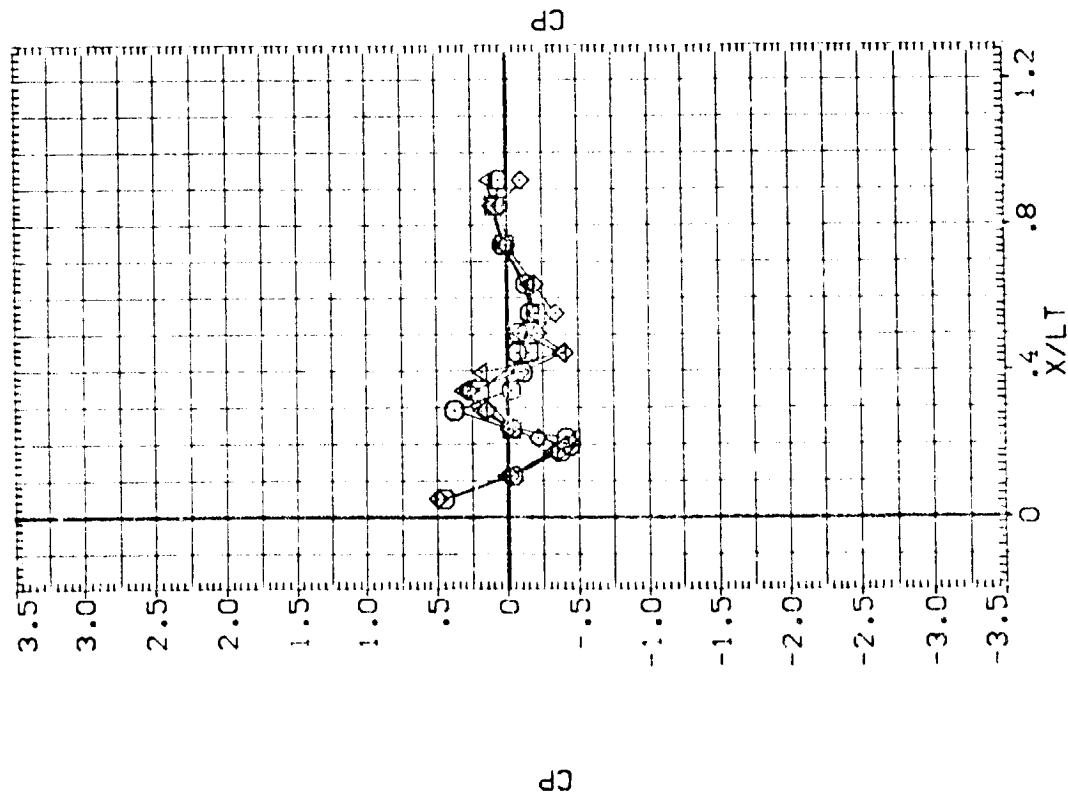
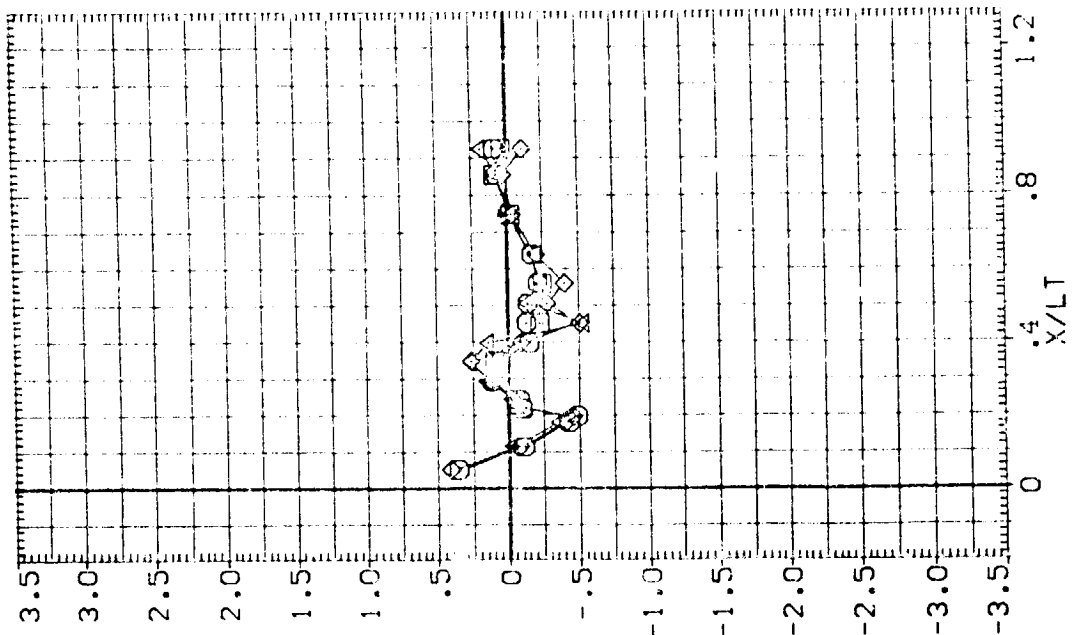
SYMBOL  
○  
□  
◇  
△

PHI  
120.000  
135.000  
150.000  
165.000

BETAT  
4.100  
8.180

ALPHAT  
-520

PARAMETRIC VALUES  
MACH 1.050  
RUDDER .000  
ELEVON .000  
SPCRK .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

# ARC1:-716 IA14 01+T12+S12N25+AT11 EXTERNAL TANK (RB1T38)

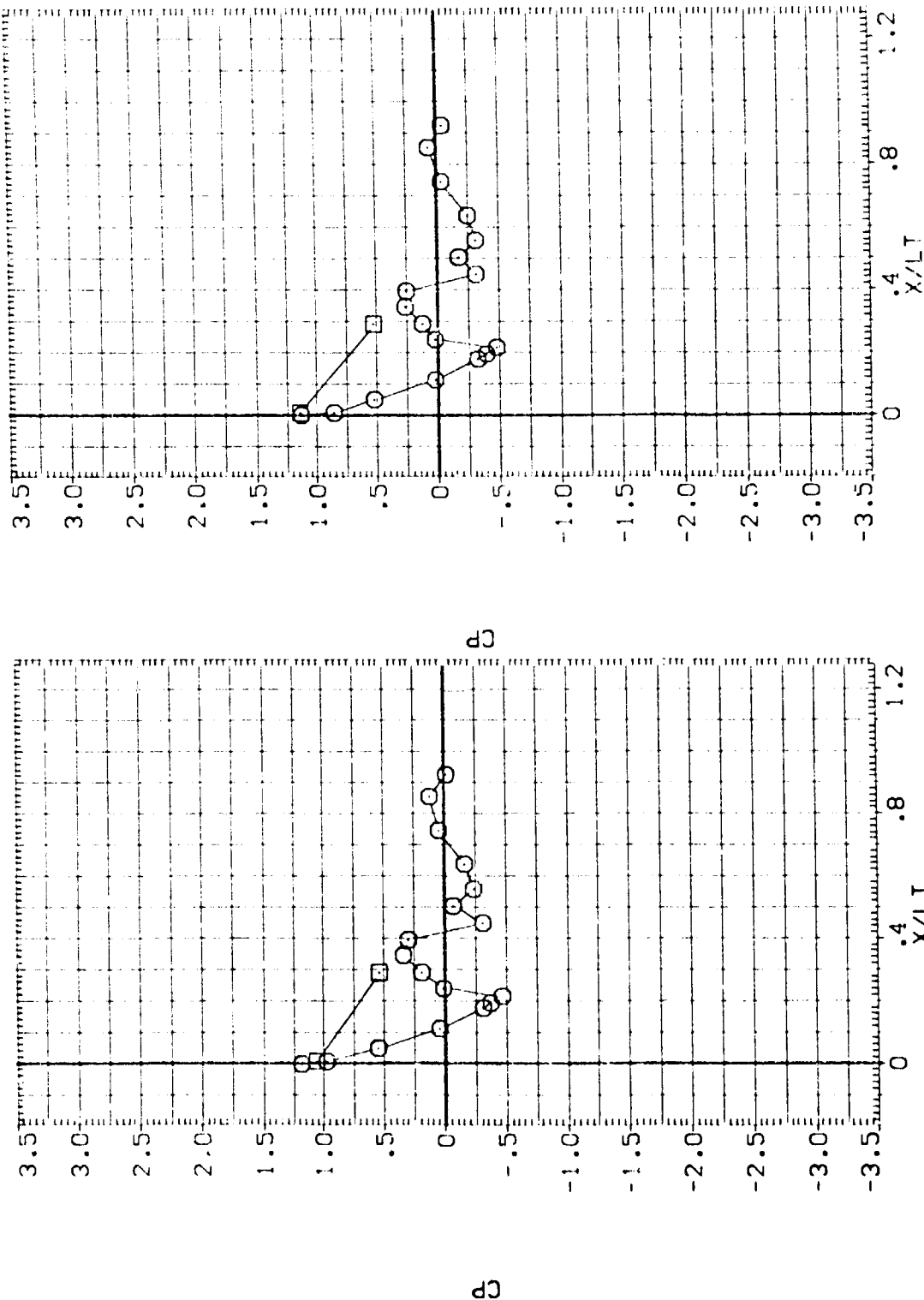
SYMBOL

PHI  
180.000  
270.000

BETAT  
4.100  
8.180

ALPHAT  
-5.20

PARAMETRIC VALUES  
MACH 1.050  
ELEVON .000  
SPDRX .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 EXTERNAL TANK (RBIT38)

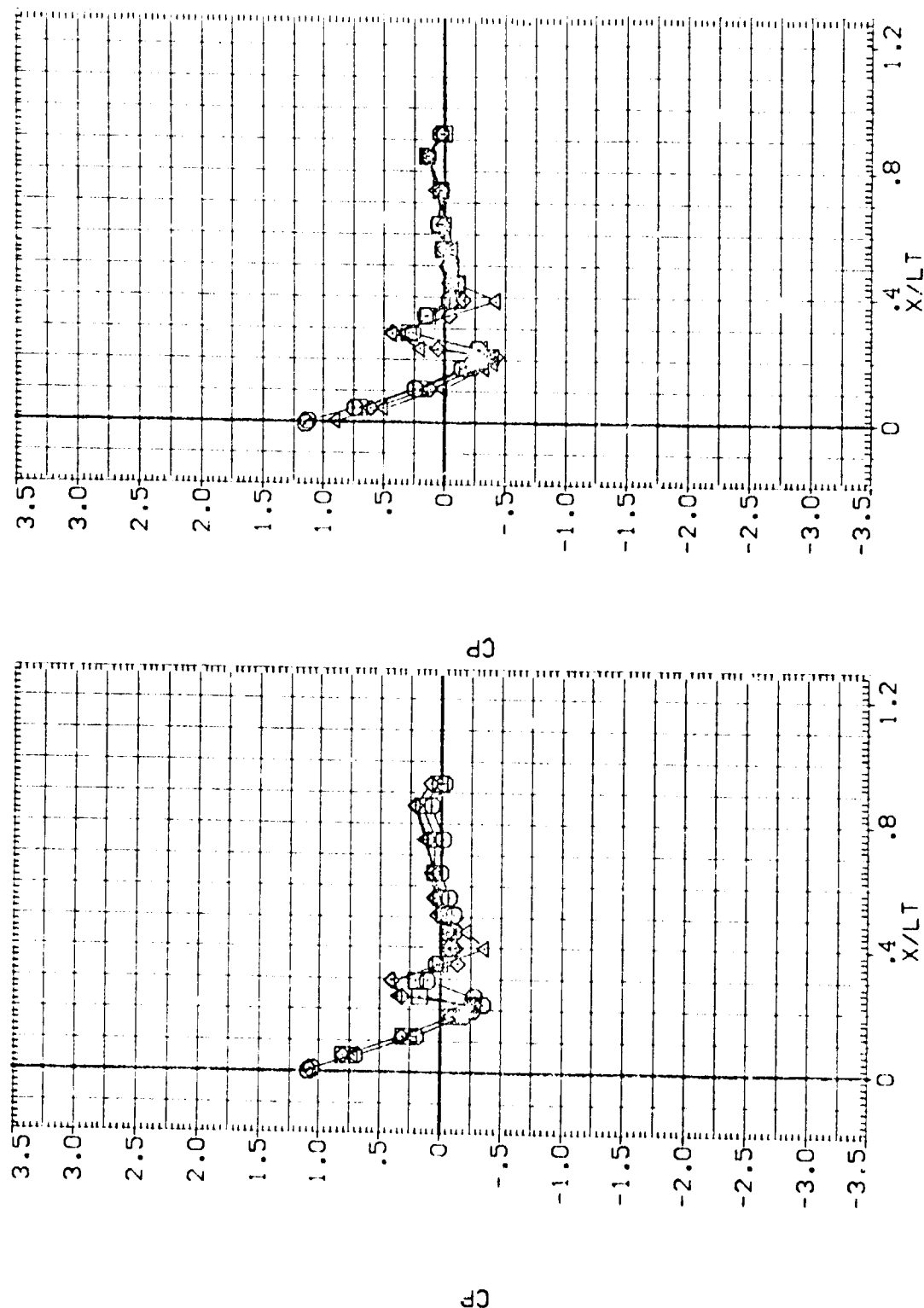
SYMBOL  
 ○  
 □  
 ◇  
 △

PHI .000  
 30.000  
 60.000  
 90.000

BETAT  
 -8.160  
 .000

ALPHAT  
 7.950

PARAMETRIC VALUES  
 MACH 1.050  
 RUDDER .000  
 ELEVON .000  
 SPOBRK .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



ARC11-716 1A14 01+T12+S12N25+AT11: EXTERNAL TANK (RB1138)

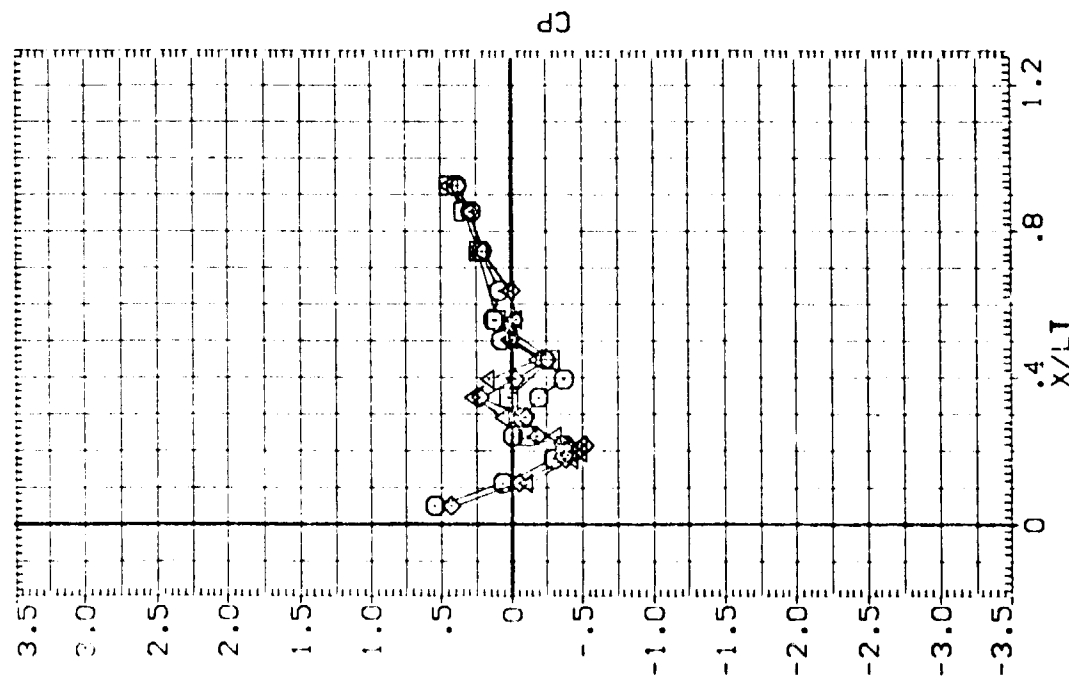
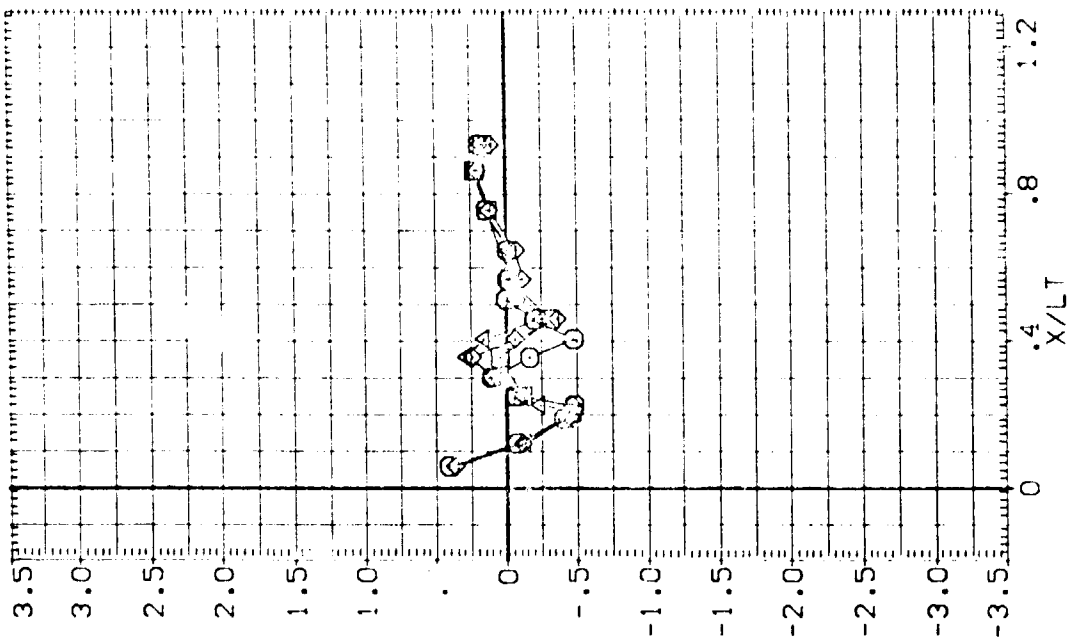
SYMBOL

PHI  
120.000  
135.000  
150.000  
165.000

BETAT  
-8.160  
.000

ALPHAT  
7.950

PARAMETRIC VALUES  
MACH 1.050  
ELEVON .000  
RUDDER .000  
SPCORK .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 EXTERNAL TANK (RB1T38)

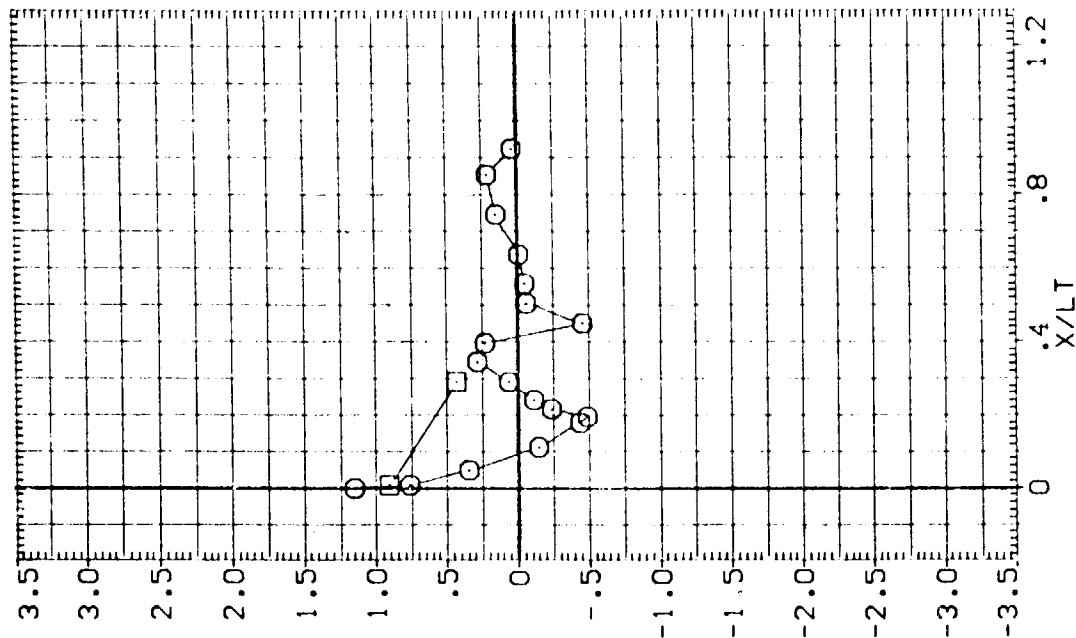
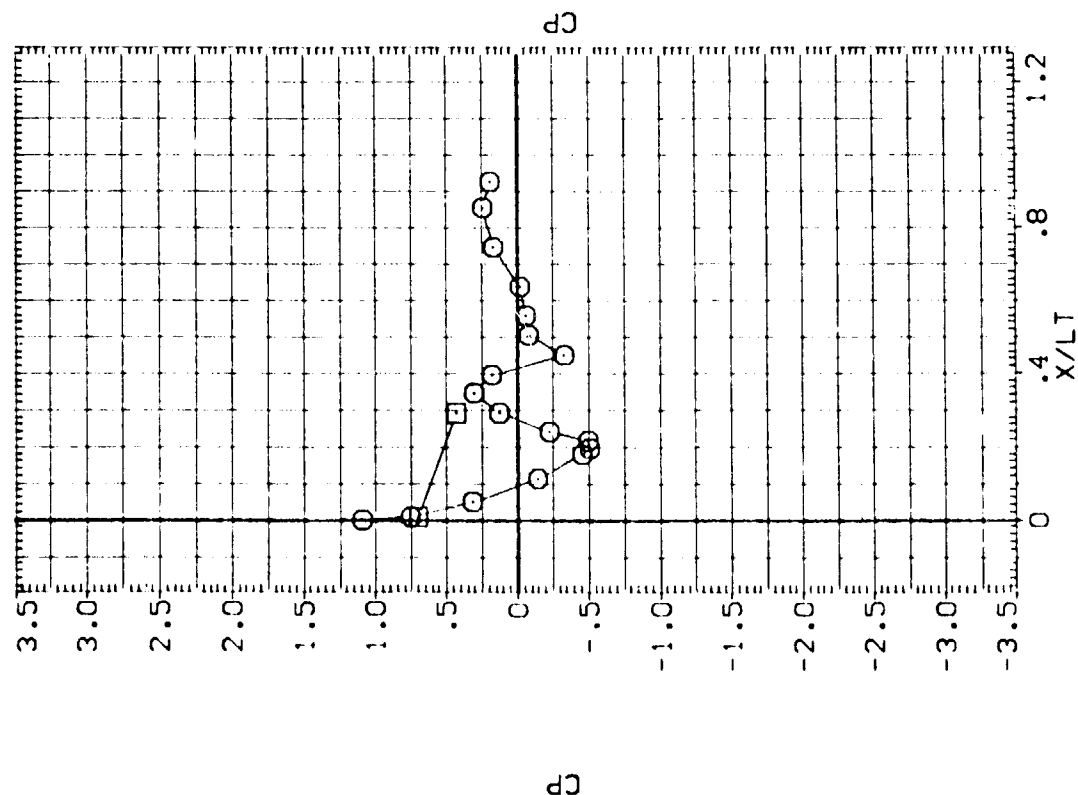
SYMBOL

PHI  
180.000  
270.000

BETAT  
-8.160  
.000

ALPHAT  
7.950

PARAMETRIC VALUES  
MACH 1.050  
RUDDER .000  
ELEVCN .000  
SPDBRK .000



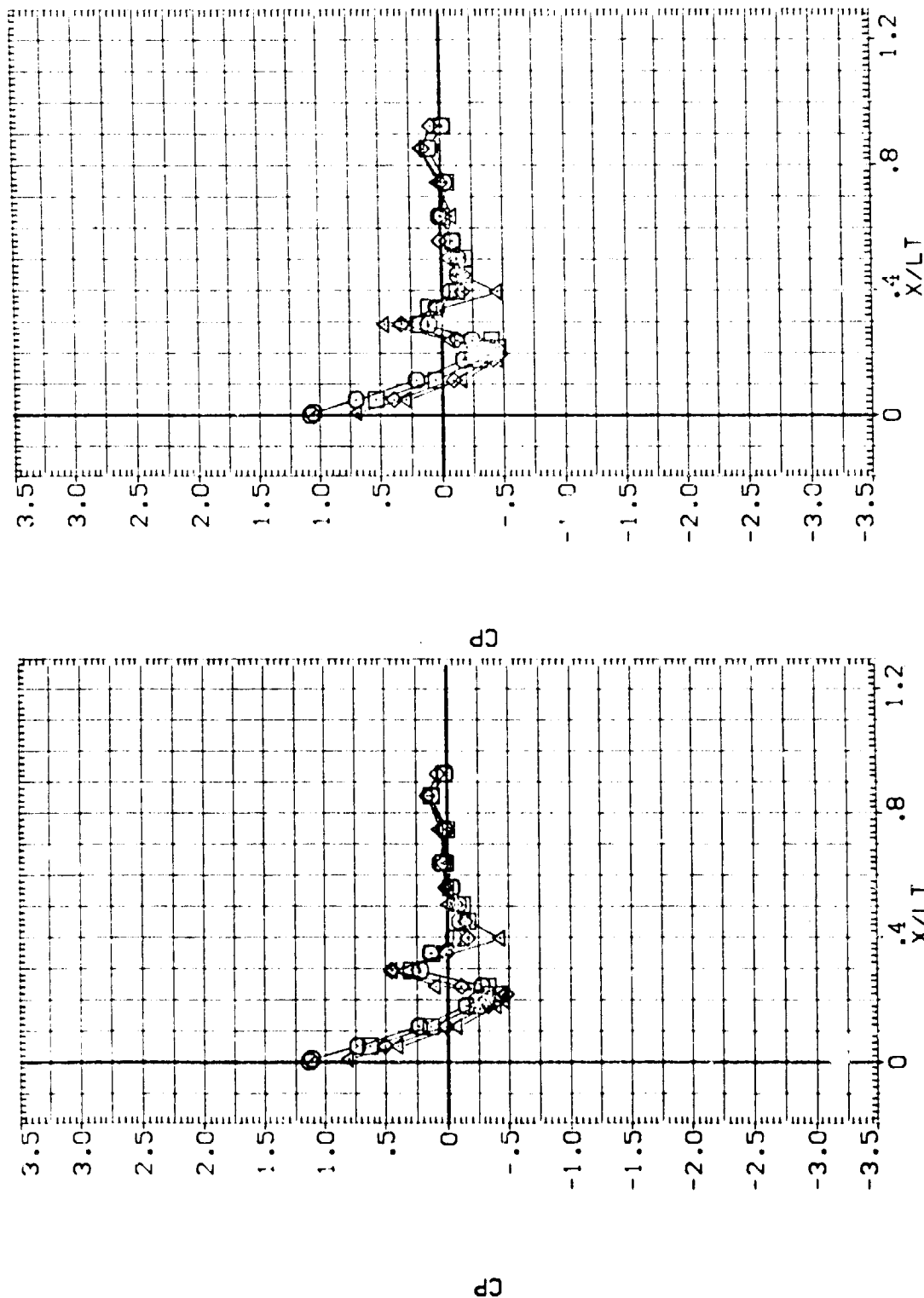
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01-T12+S12N25+AT11 EXTERNAL TANK (R81T38)

PARAMETRIC VALUES  
MACH 1.050 ELEVON .000  
RUDDER .000 SPOBRK .000

PHI .000 ALPHAT 8.000  
30.000 8.300  
60.000  
90.000

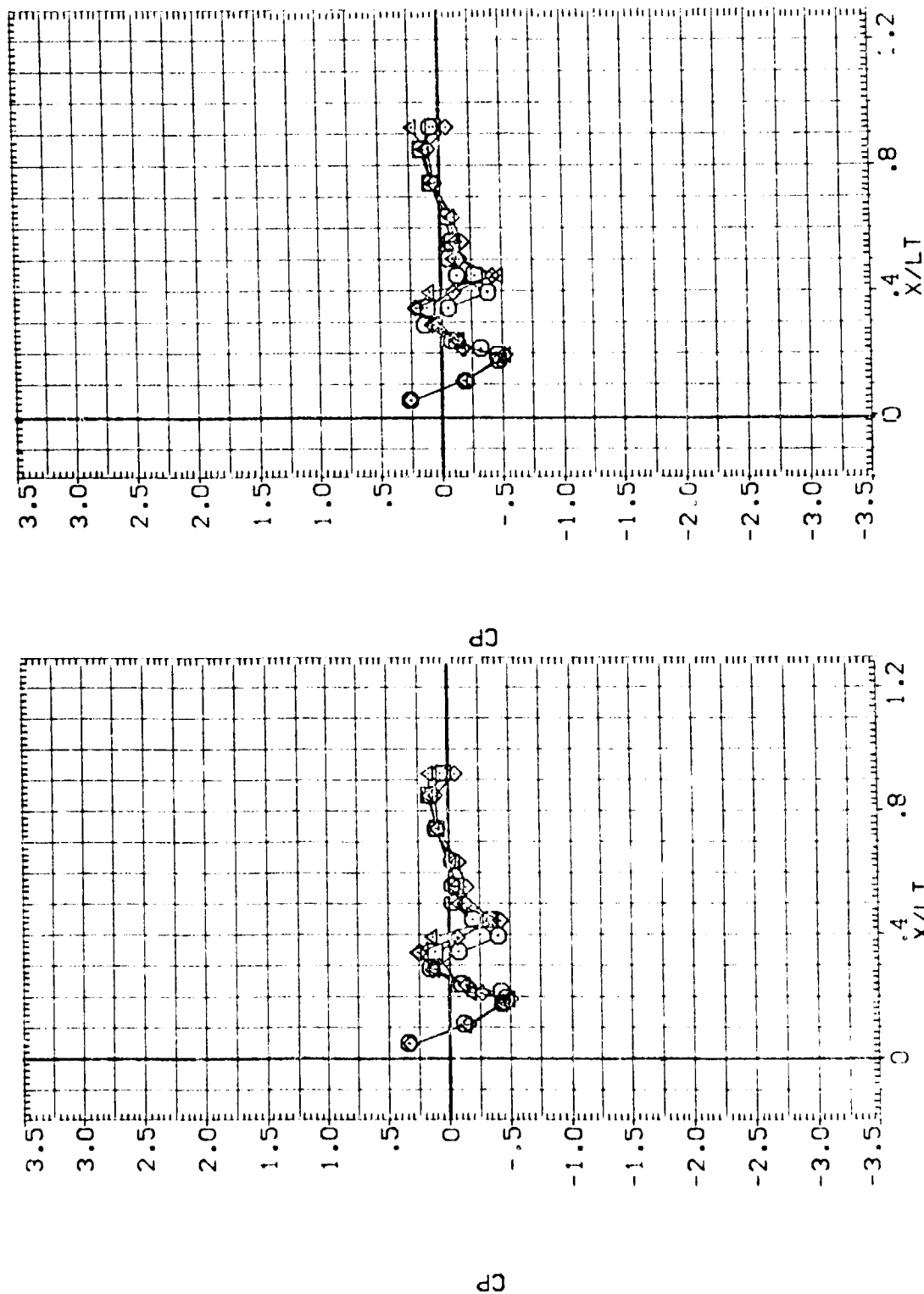
SYMBOL  
○ □ ◇ △



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

# ARC11-716 1A14 01+112+S12N25+AT11 EXTERNAL TANK (RB1T38)

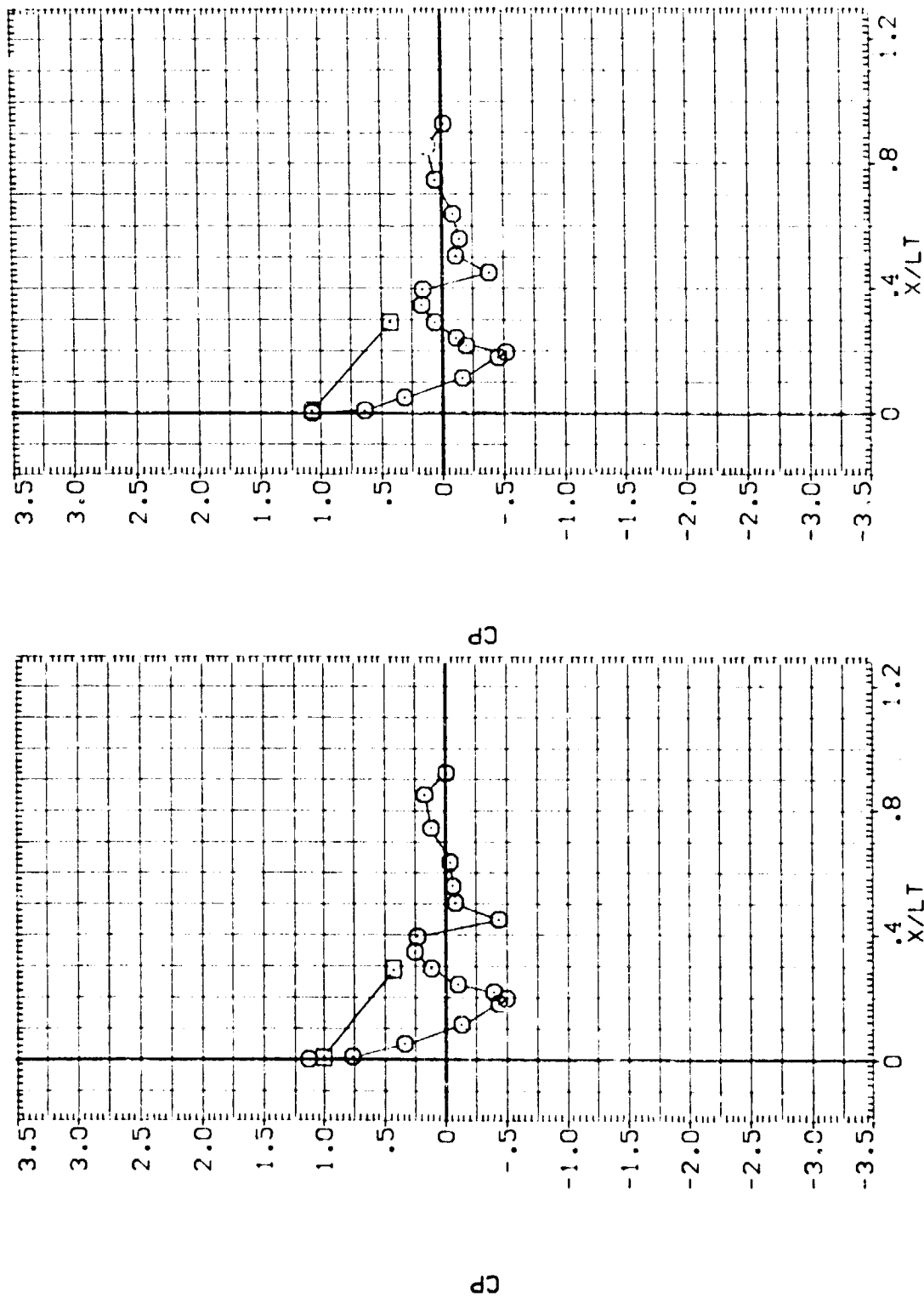
SYMBOL	PHI	BETAT	ALPHAT	PARAMETRIC VALUES		
				MACH	ELEVON	SPDRK
○	120.000	4.130	8.000	1.050	.000	.000
□	135.000	8.300		.000		
◇	150.000					
△	165.000					



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 IA14 01+T12+S12N25+AT11 EXTERNAL TANK (RB1T38)

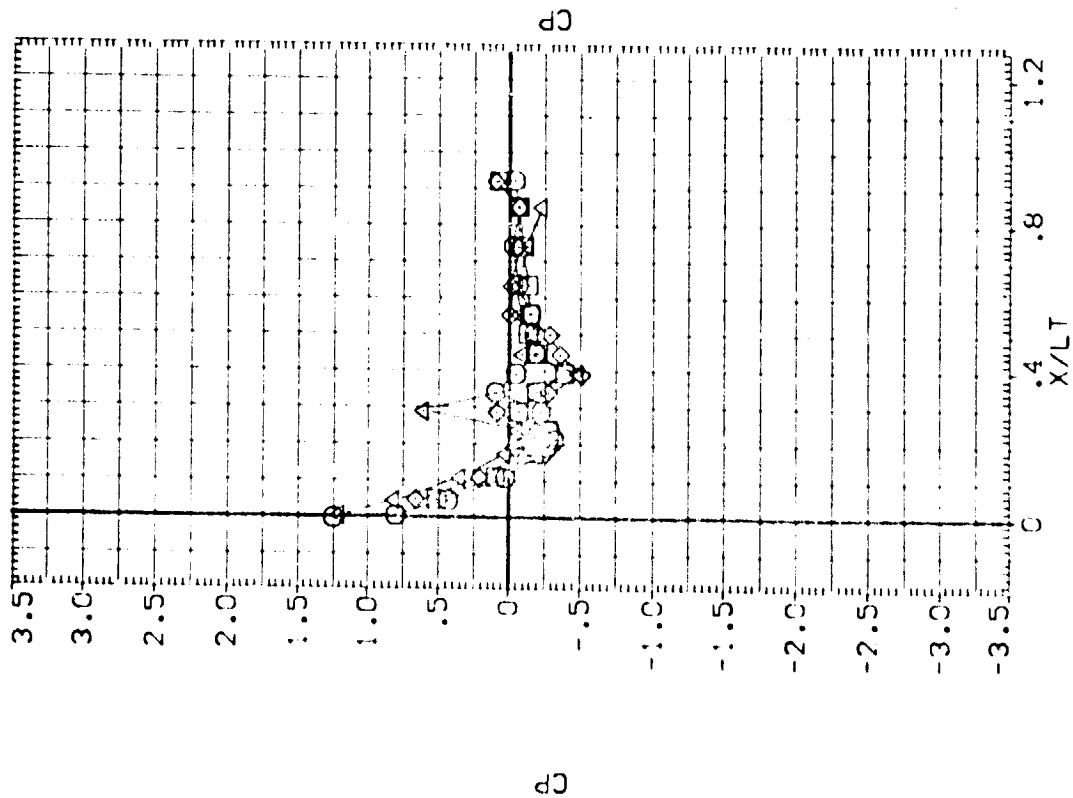
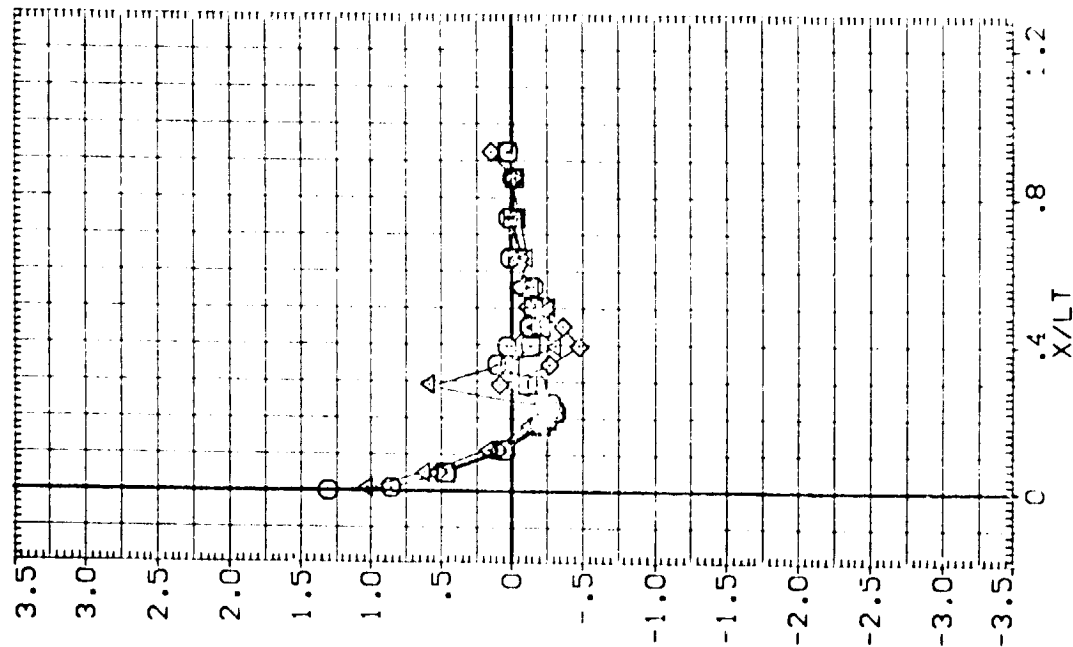
SYMBOL	PHI	BETAT	ALPHAT	PARAMETRIC VALUES
○	180.000	4.130	8.000	MACH 1.050 ELEVON .000
□	270.000	8.300		RUDDER .000 SPDRK .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 EXTERNAL TANK (RB1T40)

SYMBOL	PHI	BETAT	ALPHAT	PARAMETRIC VALUES		
				MACH	ELEVON	
○	.000	-8.190	-8.470	.000	.000	.000
◇	30.000	.000	.000	RUDER	SPDRK	.000
△	50.000					
△	90.000					



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 EXTERNAL TANK (RB1T40)

SYMBOL  
 O  
 □  
 ◇  
 △

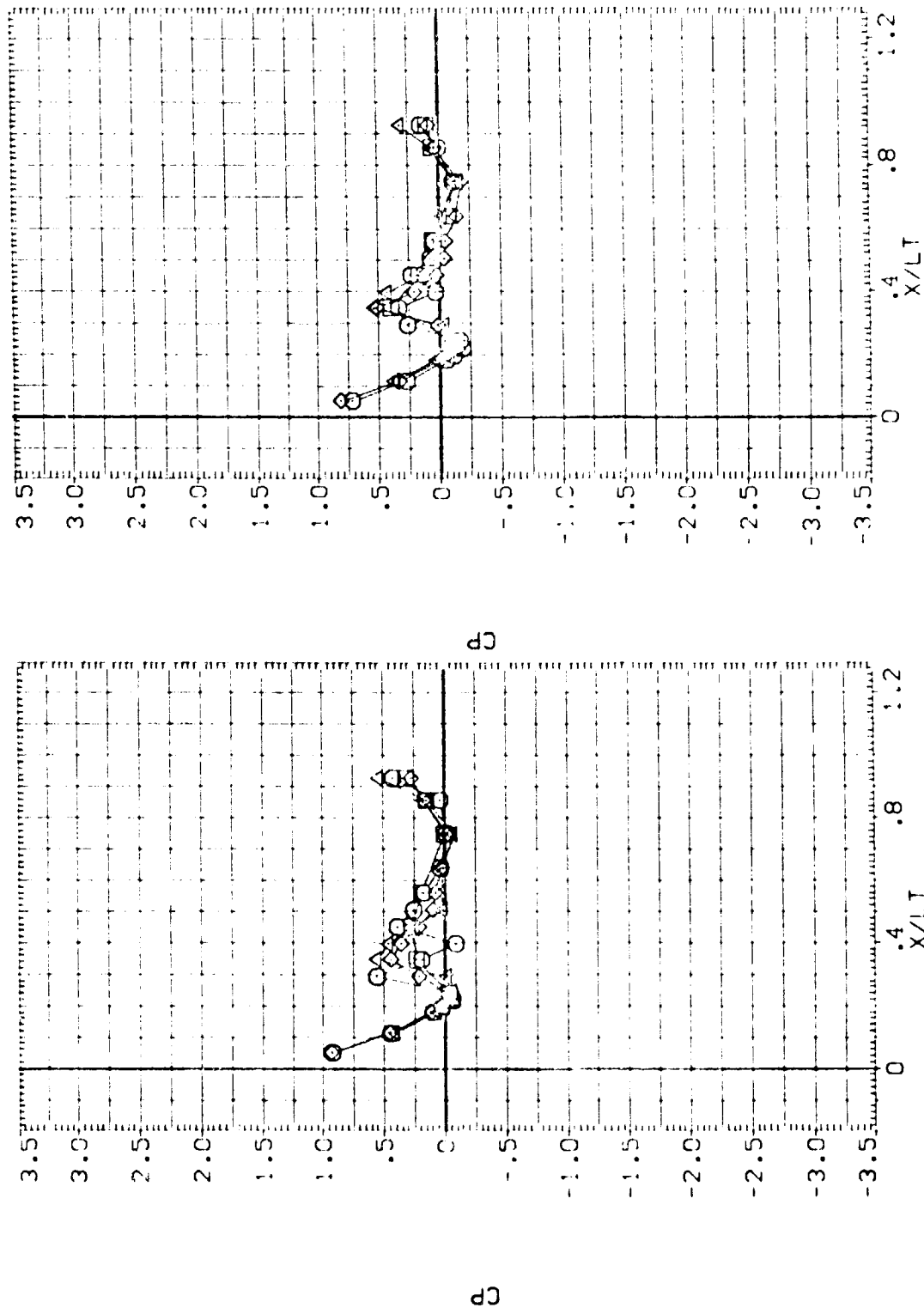
PHI  
 120.000  
 135.000  
 150.000  
 165.000

BETAT  
 -8.190  
 .000

ALPHAT  
 -8.470

MACH  
 RUDDER

PARAMETRIC VALUES  
 1.400  
 .000  
 ELEVON  
 .000  
 SPOBRK  
 .000



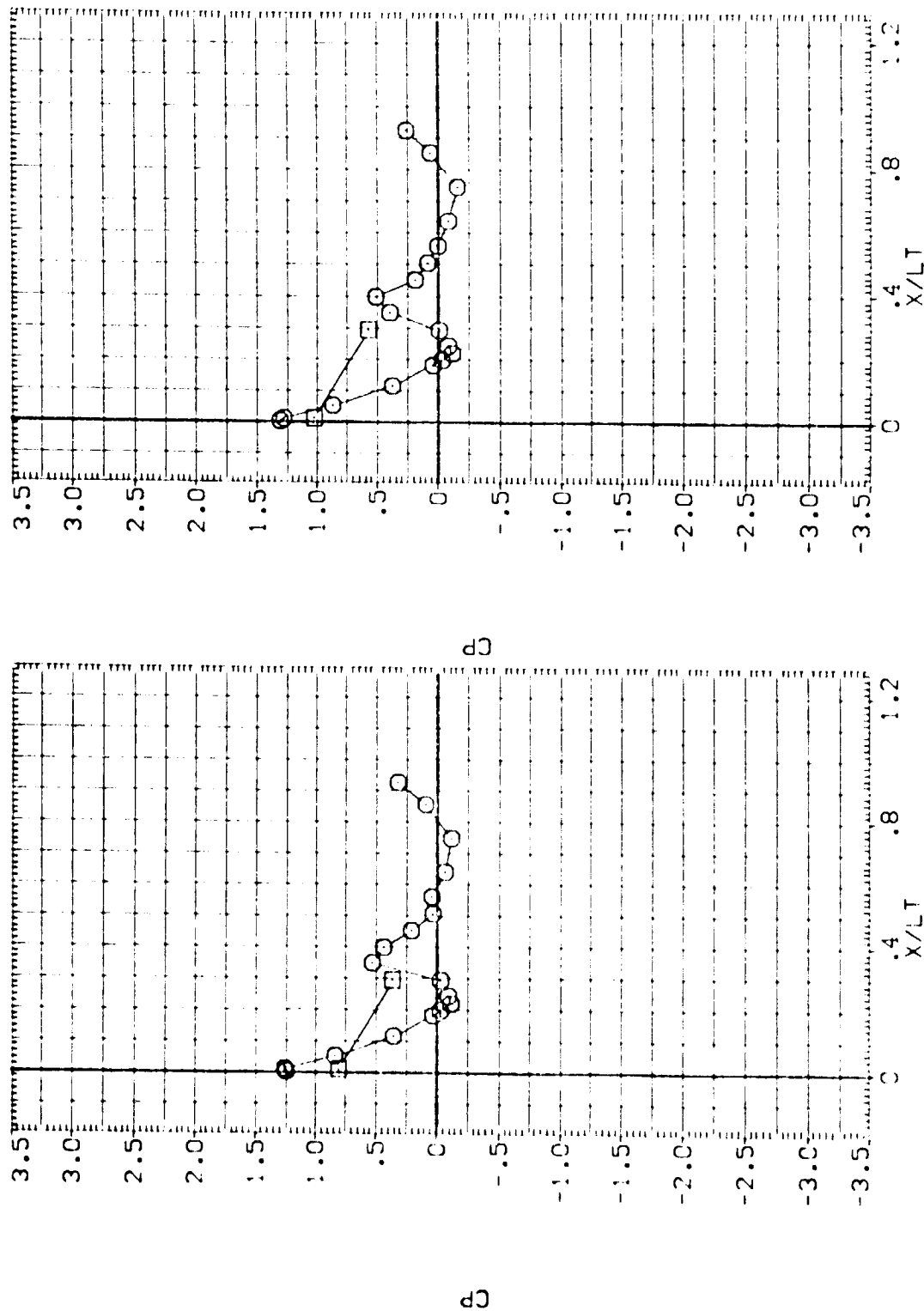
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 EXTERNAL TANK (RB1T40)

SYMBOL

PHI BETAT ALPHAT  
180.000 -8.190 -8.470  
270.000 .000

PARAMETRIC VALUES  
MACH 1.400 ELEVON .000  
RUDDER .000 SPOBRK .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

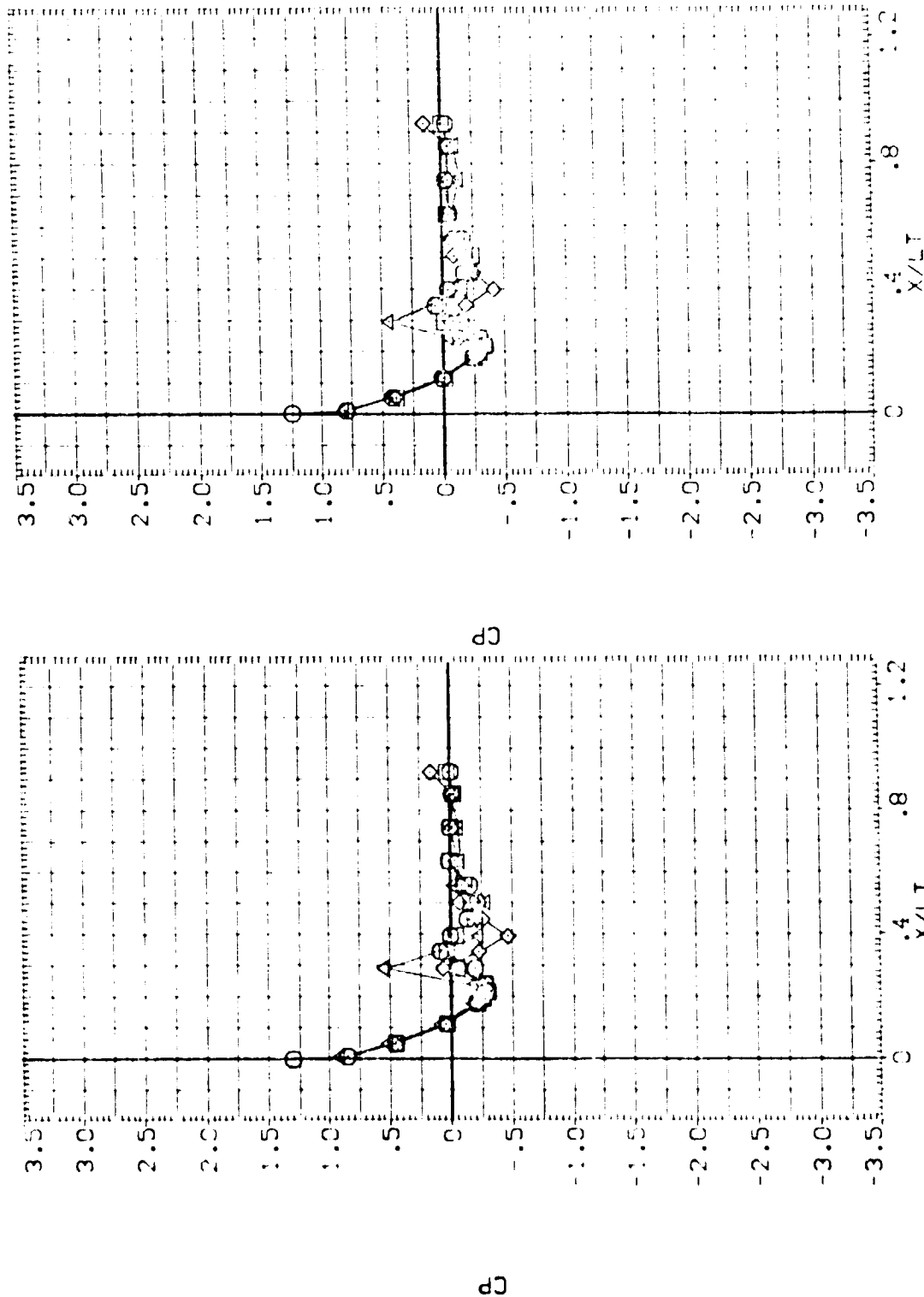


# ARC11-716 (A14 01+112+S12N25+AT1) EXTERNAL TANK (RB1140)

SYMBOL  
 ○ 0  
 □ 30,000  
 ◇ 60,000  
 △ 90,000

PHI BETAT ALPHAT  
 .000 4.120 -8.430  
 30.000 8.270

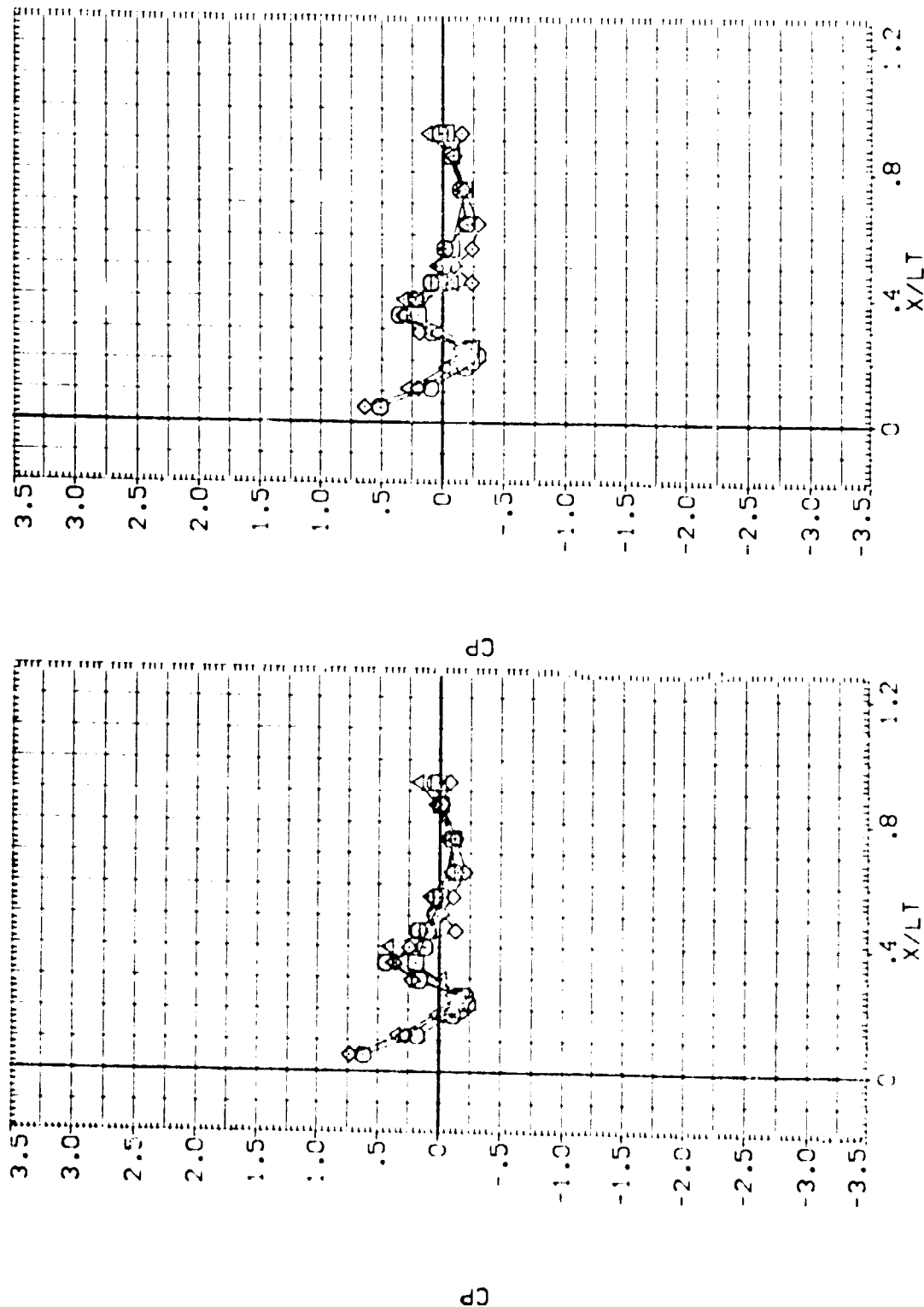
PARAMETRIC VALUES  
 MACH 1.400 ELEVSN .000  
 RUDDER .000 SPOBCK .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-7:6 1A14 01+T12+S12N25+AT11 EXTERNAL TANK (RB1T40)

SYMBOL	PHI	BETAT	ALPHAT	MACH	ELEVON	SPORRK
○	120.000	4.120	-8.430	1.400	.000	.000
◇	135.000	8.270				
△	150.000					
▽	165.000					



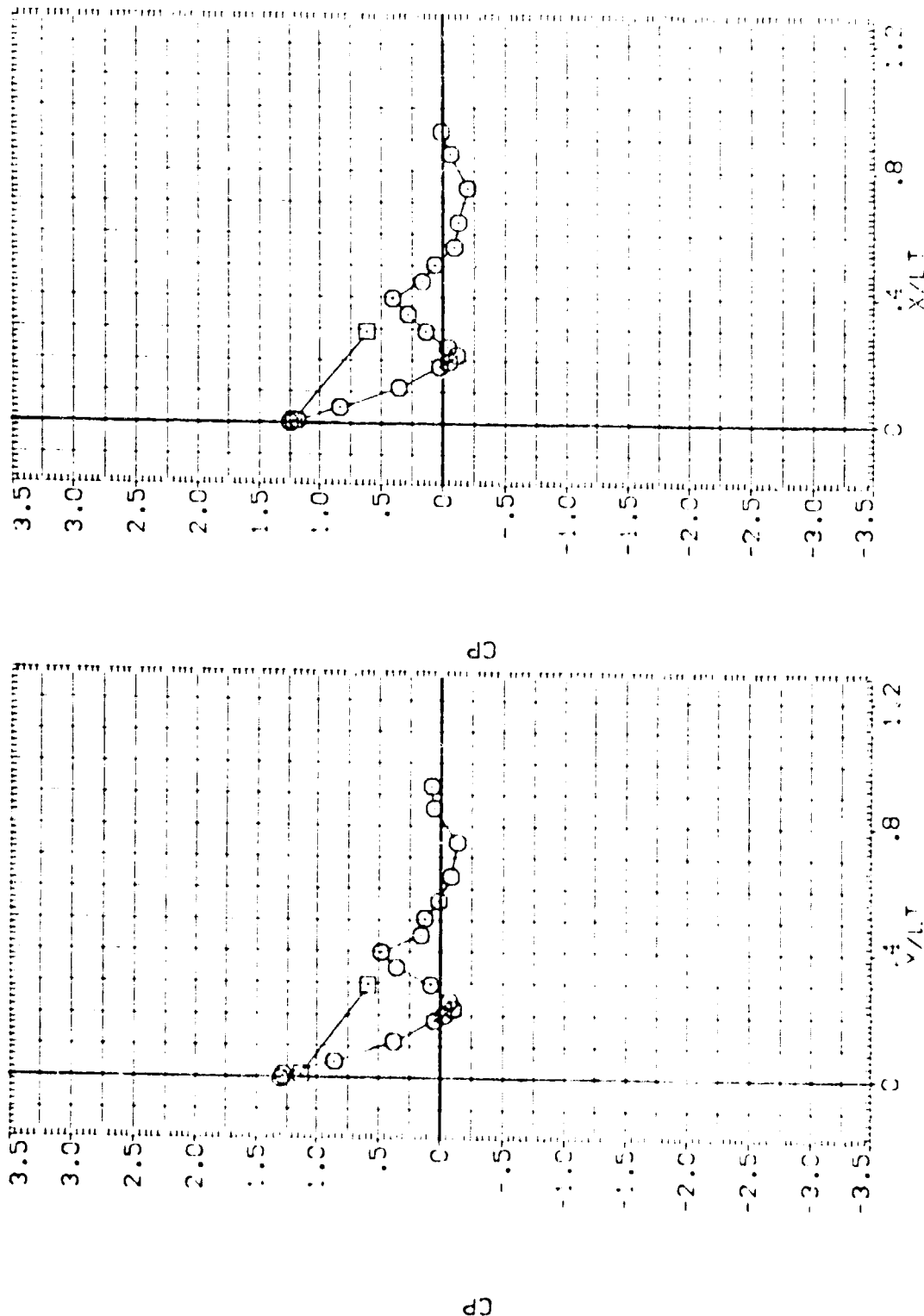
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+12+S12N25+AT11 EXTERNAL TANK (RB1140)

SYMBOL

PHI BE'AT ALPHAT  
180.000 4.120 -8.430  
270.000 8.270

PARAMETRIC VALUES  
MACH 1.400 ELEV'N .000  
RUDDER .000 SP'286K .000



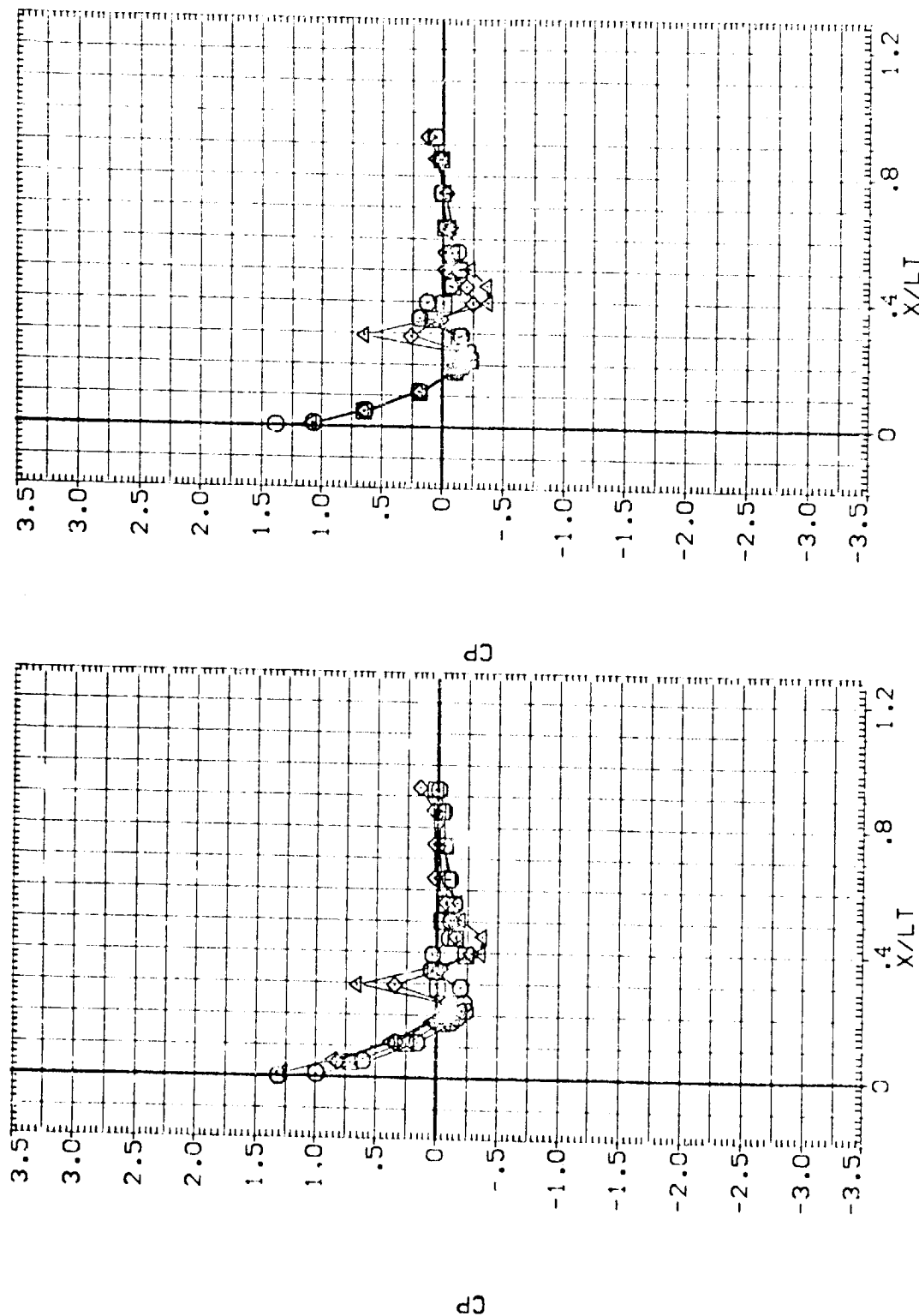
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 IA14 01+T12+S12N25+A111 EXTERNAL TANK (RB1T40)

SYMBOL  
 ○ □ ◇ △

PHI BETAT ALPHAT  
 .000 -8.230 -.560  
 30.000 -.010  
 60.000  
 90.000

PARAMETRIC VALUES  
 1.400 ELEVON .000  
 .000 SPD3RK .000  
 MACH  
 RUDDER



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 EXTERNAL TANK (RB1T40)

SYMBOL

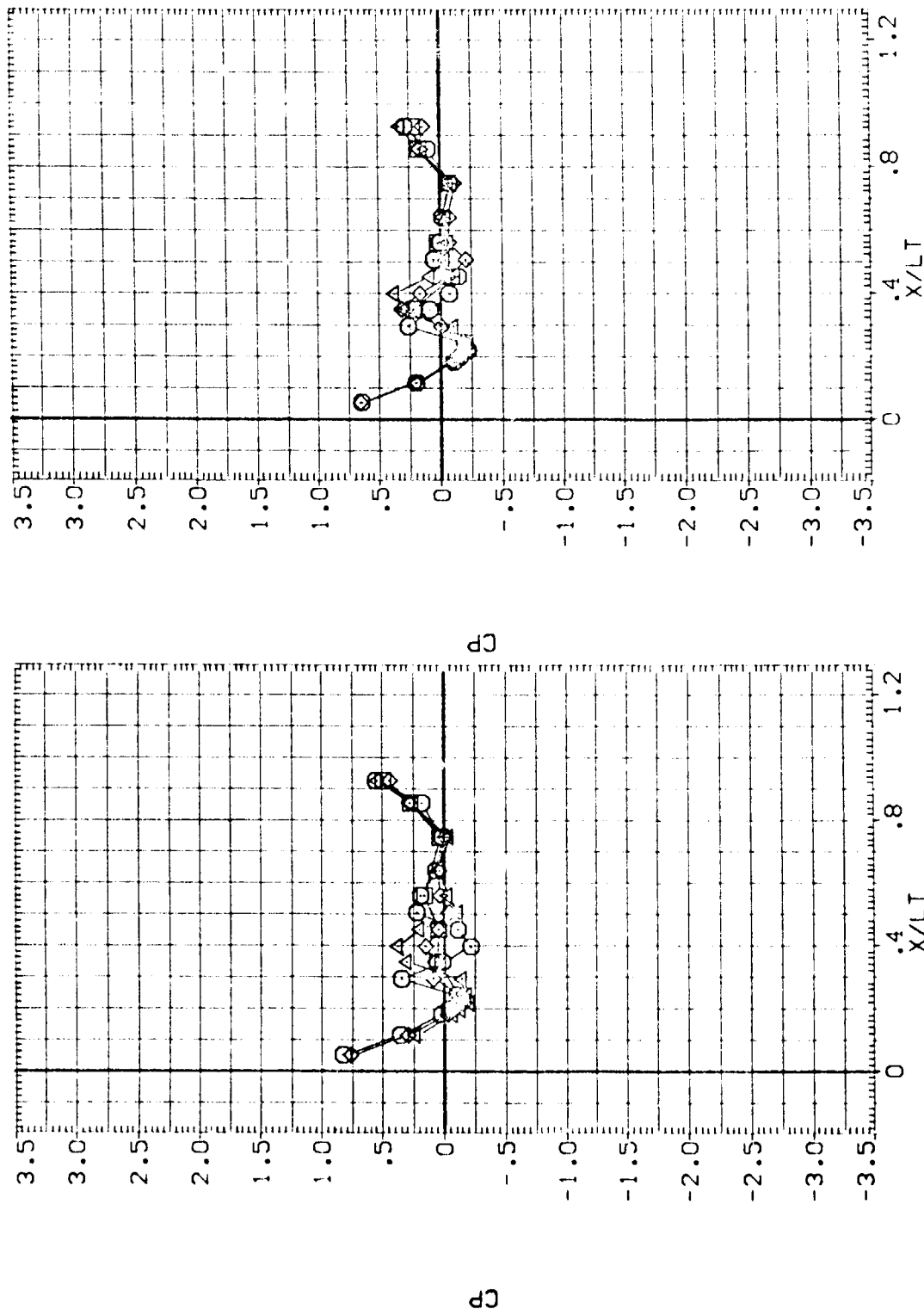
PHI  
120.000  
135.000  
150.000  
165.000

BETAT  
-8.230  
-.010

ALPHAT  
-.560

PARAMETRIC VALUES

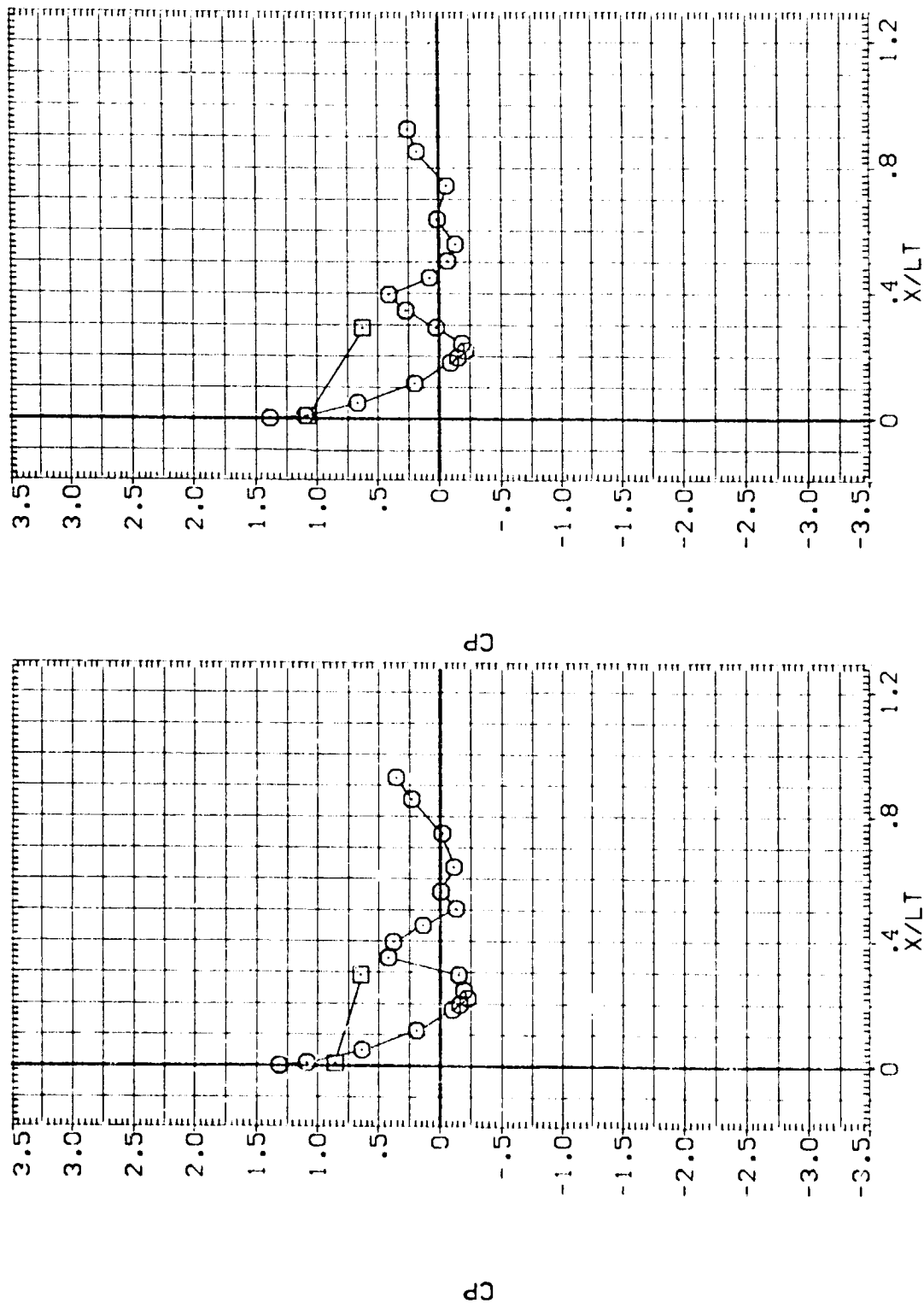
MACH 1.400 ELEVON .000  
RUDDER .000 SPDRPK .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 IA14 01+T12+S12N25+AT11 EXTERNAL TANK (RB1140)

SYMBOL	PHI	BETAT	ALPHAT	PARAMETRIC VALUES		
○	180.000	-8.230	-.560	MACH	1.400	ELEVON
□	270.000	-.010	-.560	RUDDER	.000	SPDRPK
					.000	.000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

# ARC11-716 IA14 01+T12+S12N25+AT11 EXTERNAL TANK (RB1T40)

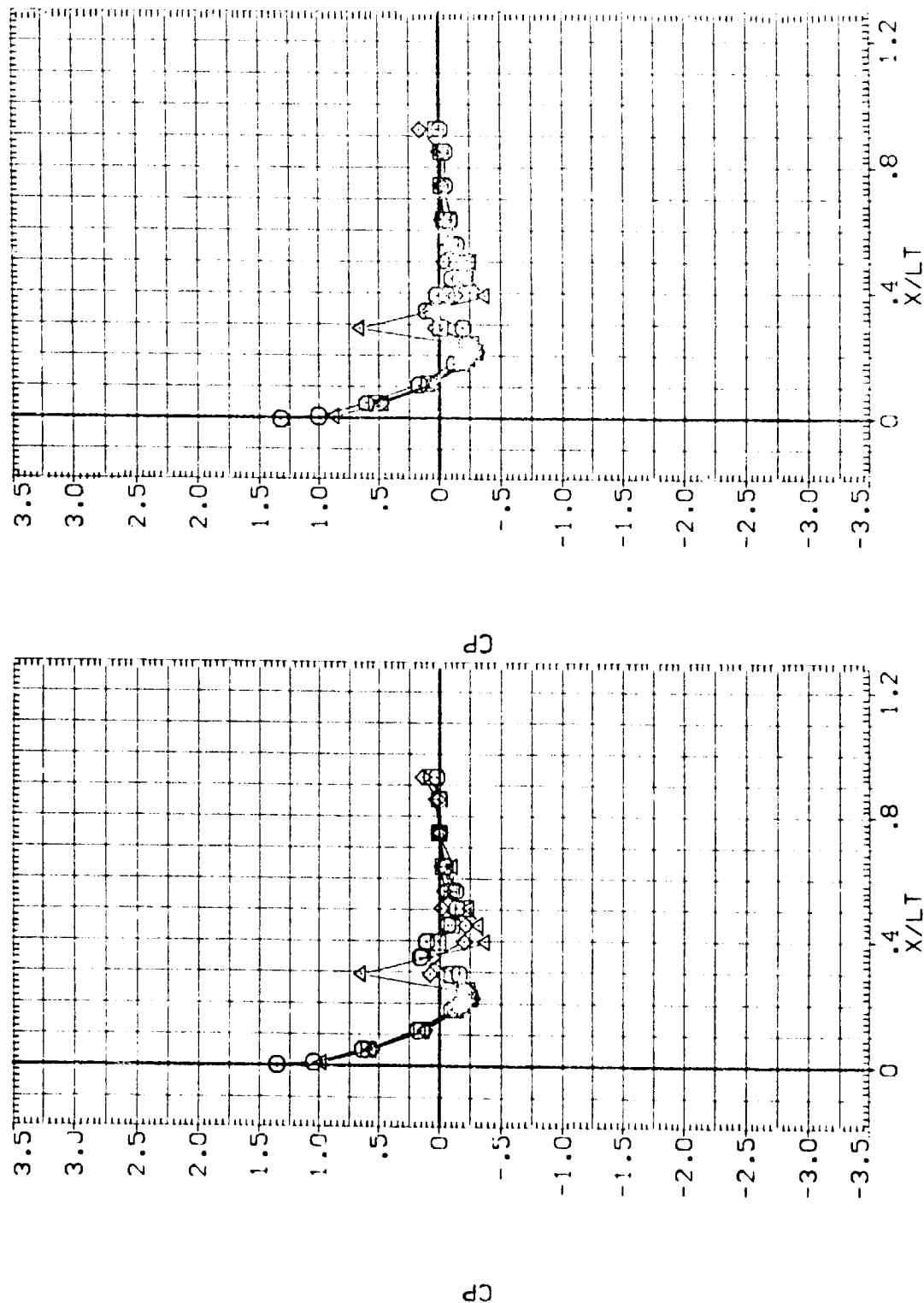
SYMBOL

PHI .000  
30.000  
60.000  
90.000

BETAT 4.110  
8.210

ALPHAT -5.50

PARAMETRIC VALUES  
MACH 1.400  
ELEVON .000  
RUDDER .000  
SPDBRK .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 EXTERNAL TANK (RB1T40)

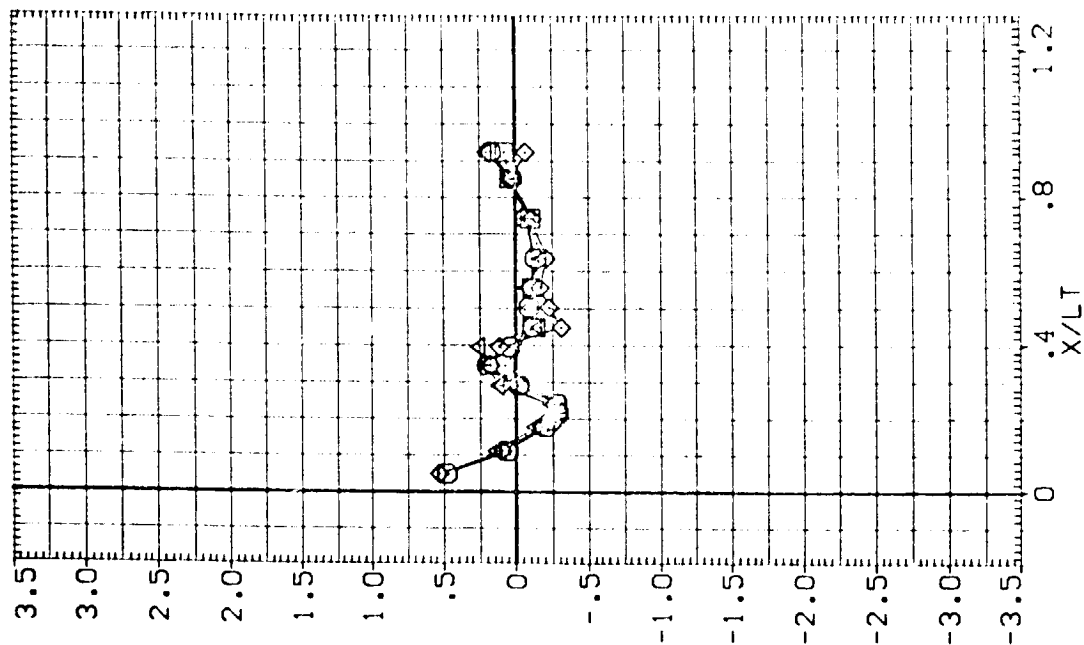
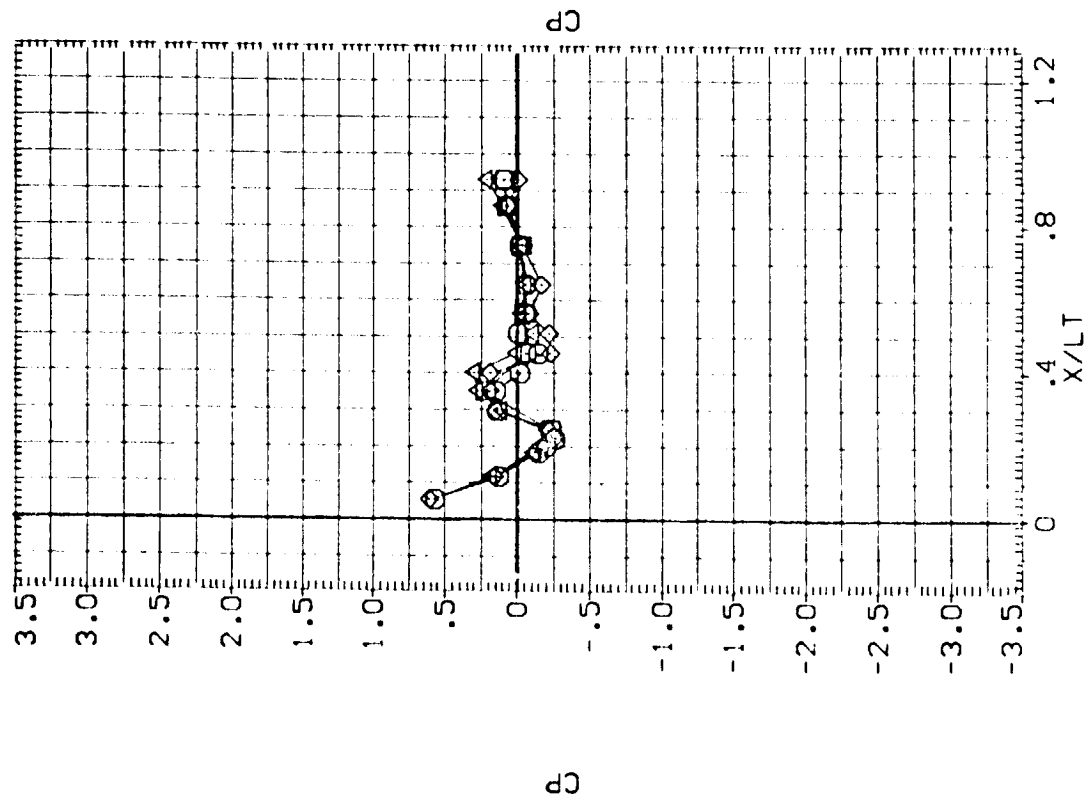
SYMBOL  
 O  
 □  
 ◇  
 △

PHI  
 120.000  
 135.000  
 150.000  
 165.000

BETAT  
 4.110  
 8.210

ALPHAT  
 -.550

PARAMETRIC VALUES  
 MACH 1.400  
 RUDDER .000  
 ELEVON .000  
 SPOBRK .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



ARC11-716 IA14 01+T12+S12N25+AT11 EXTERNAL TANK (RB1T40)

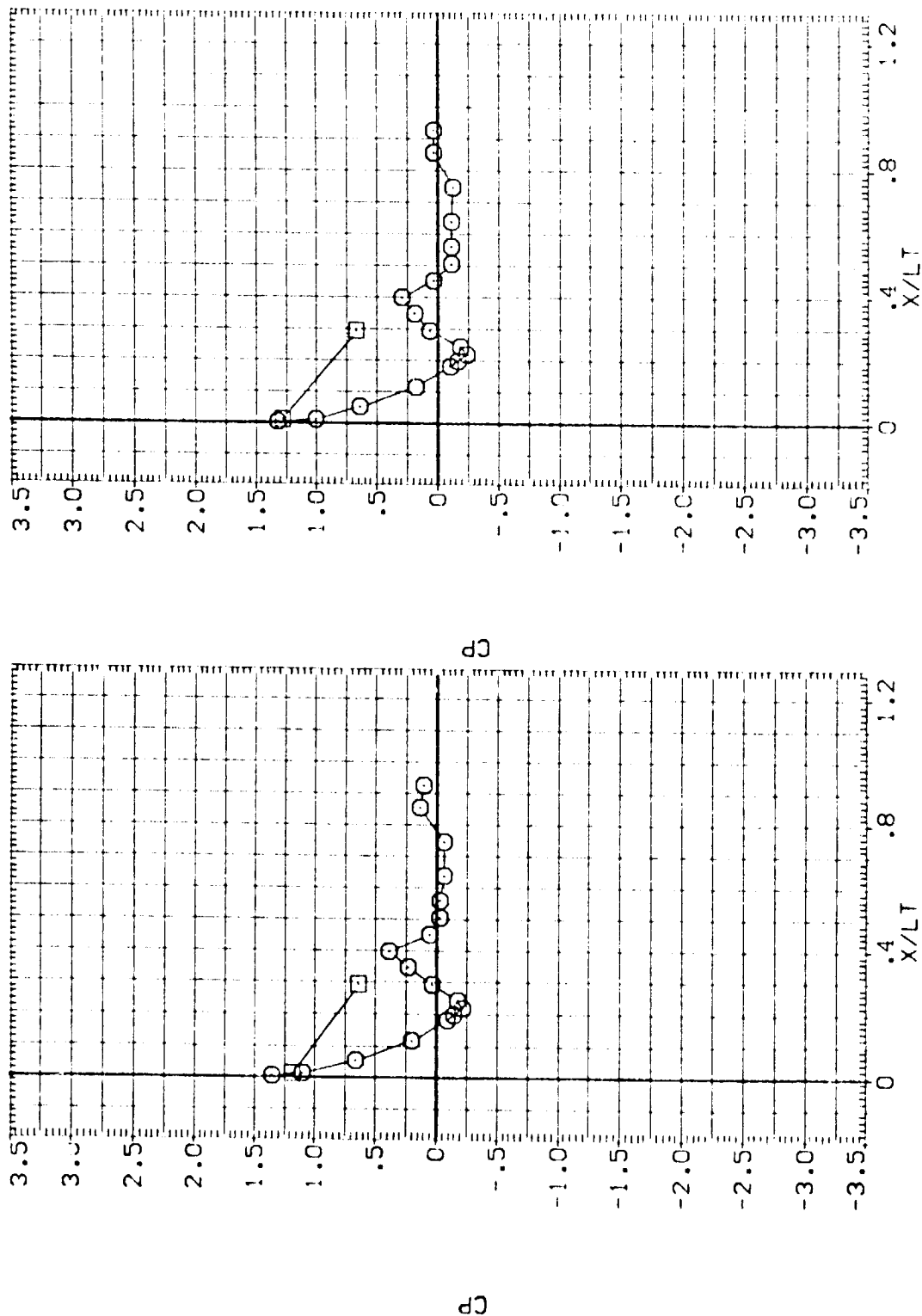
SYMBOL  
O [ ]

PHI 180.000  
270.000

BETAT 4.110  
8.210

ALPHAT -550

PARAMETRIC VALUES  
MACH 1.400  
RUDDER .000  
ELEVON .000  
SPOBRK .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 IA14 01+T12+S12N25+AT11 EXTERNAL TANK (RB1T40)

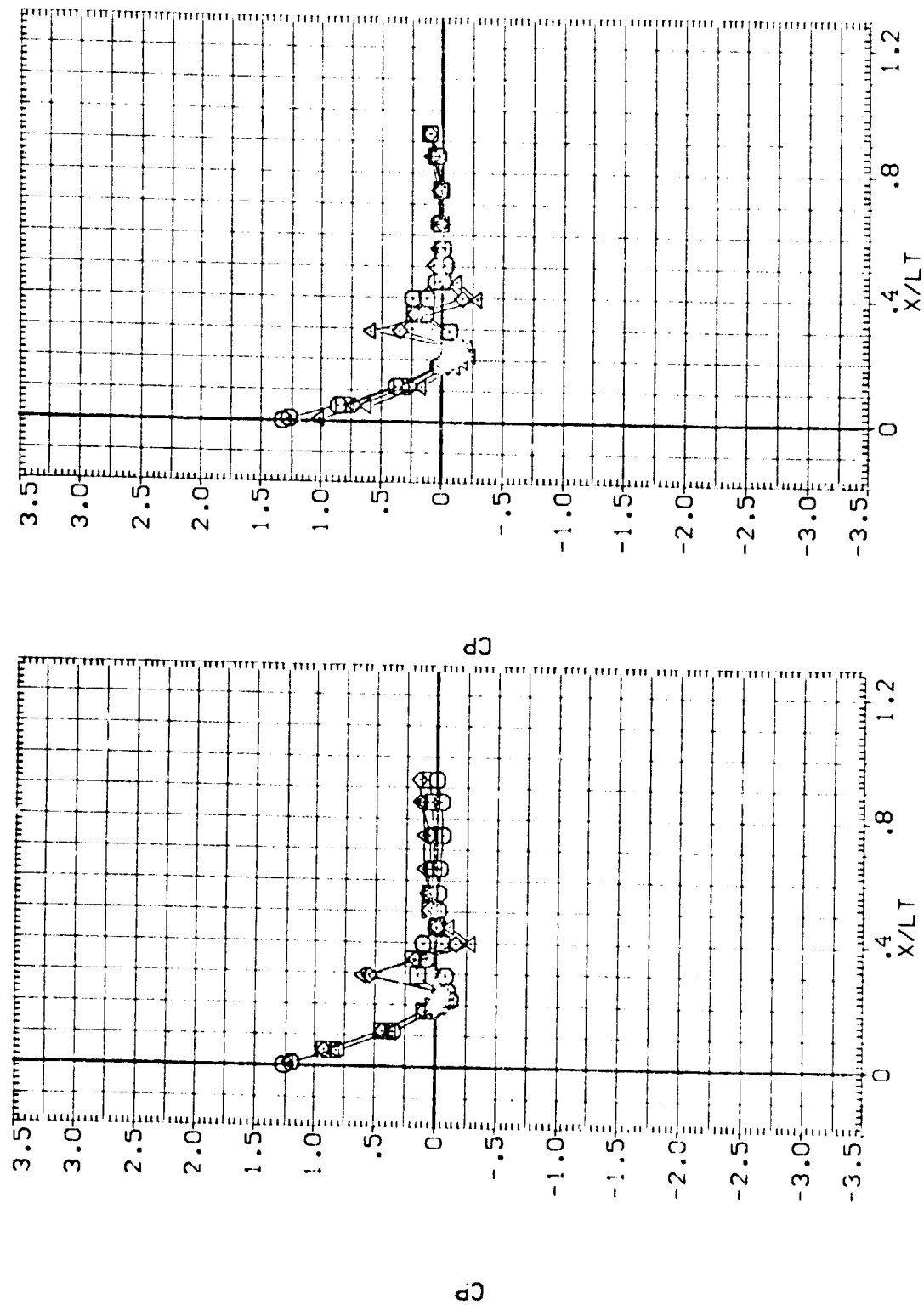
SYN60L  
 O □ ◇ △

PHI .000  
 30.000  
 60.000  
 90.000

BETAT -8.220  
 .000

ALPHAT 8.120

PARAMETRIC VALUES  
 MACH 1.400  
 RUDDER .000  
 ELEVON .000  
 SPOBRK .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 IA14 01+T12+S12N25+AT11 EXTERNAL TANK (RB1T40)

SYMBOL  
 O  
 □  
 △

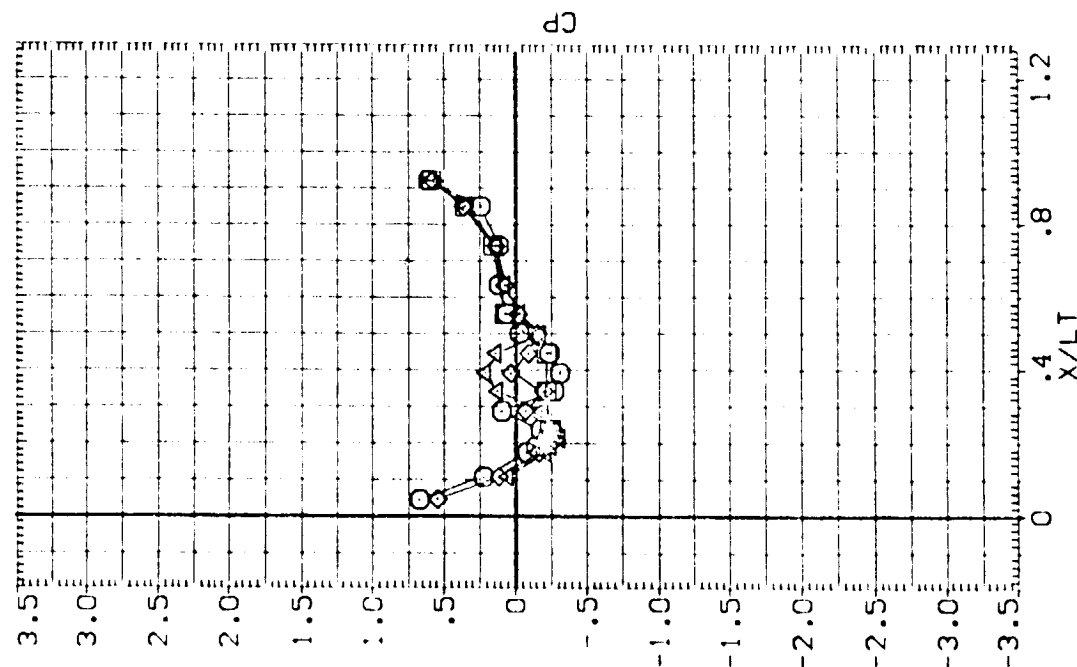
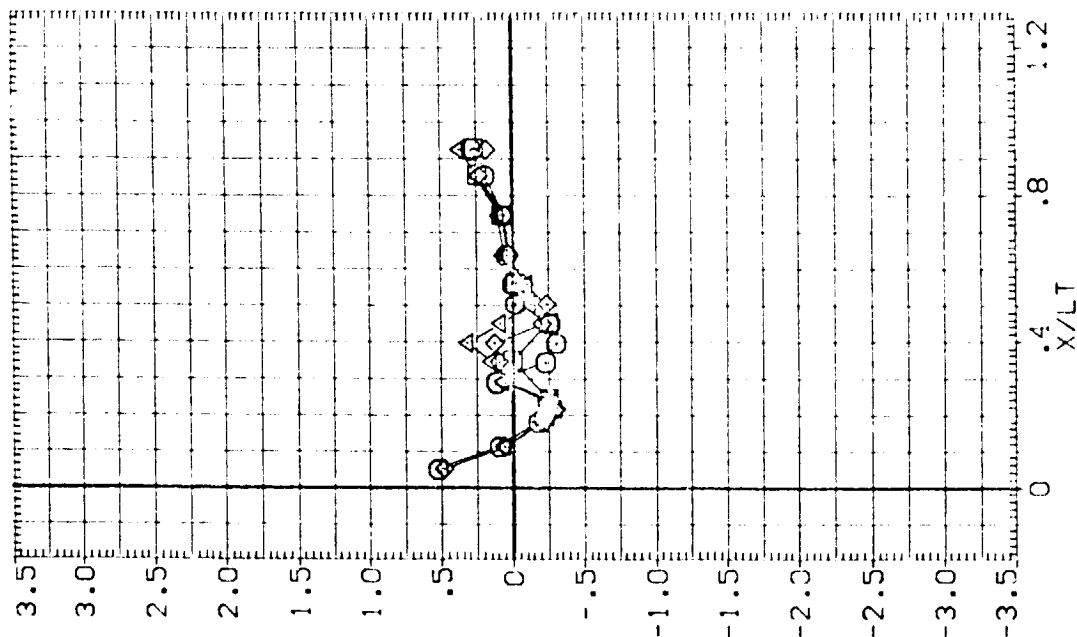
PHI  
 120.000  
 135.000  
 150.000  
 165.000

BETAT  
 -8.22C  
 .000

ALPHAT  
 8.120

MACH  
 RUDDER

PARAMETRIC VALUES  
 1.400  
 .000  
 ELEVON  
 .000  
 SPOBRK  
 .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

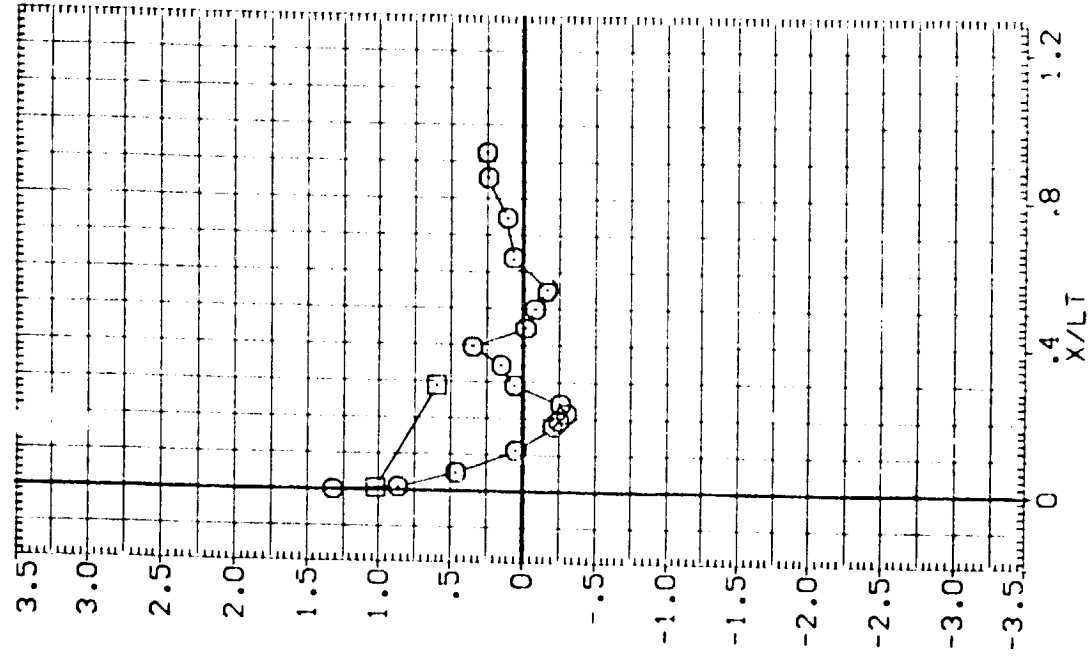
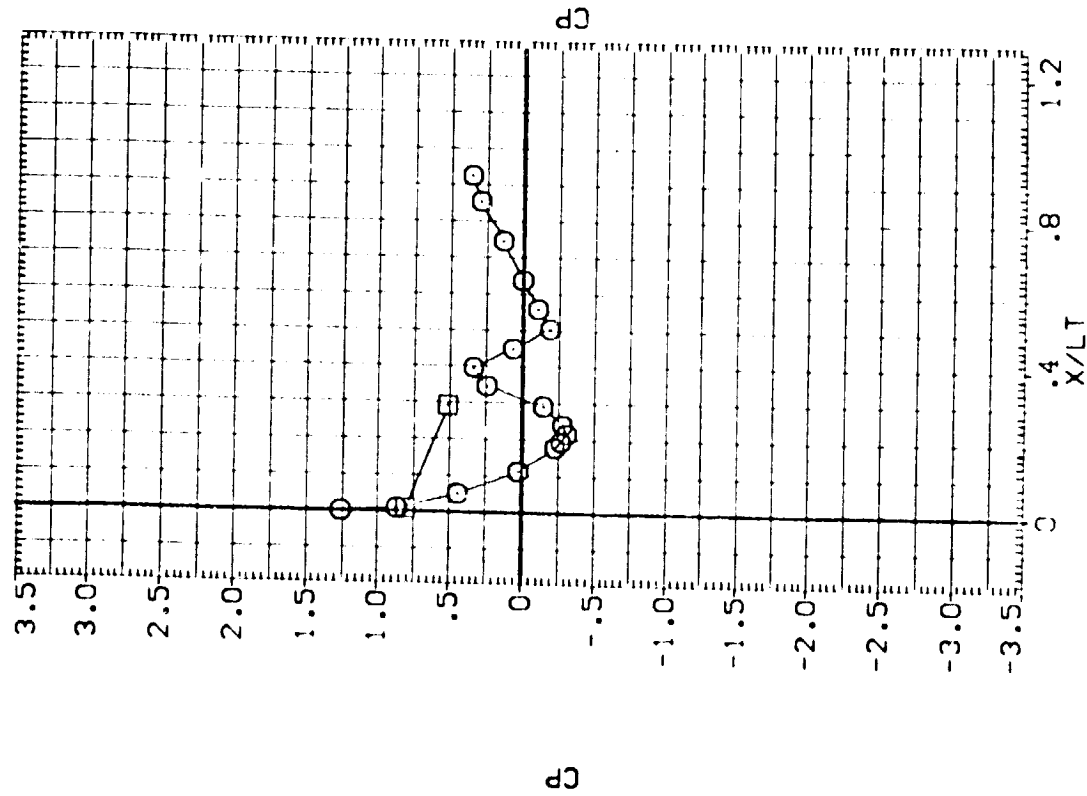


# ARC11-716 1A14 01+T12+S12N25+AT11 EXTERNAL TANK (RB1T40)

SYMBOL  
 ○  
 □

PHI 180.000  
 270.000  
 BETAT -8.220  
 .000  
 ALPHAT 9.120  
 .000

PARAMETRIC VALUES  
 MACH 1.400  
 RUDDER .000  
 ELEVON .000  
 SPOBRK .000



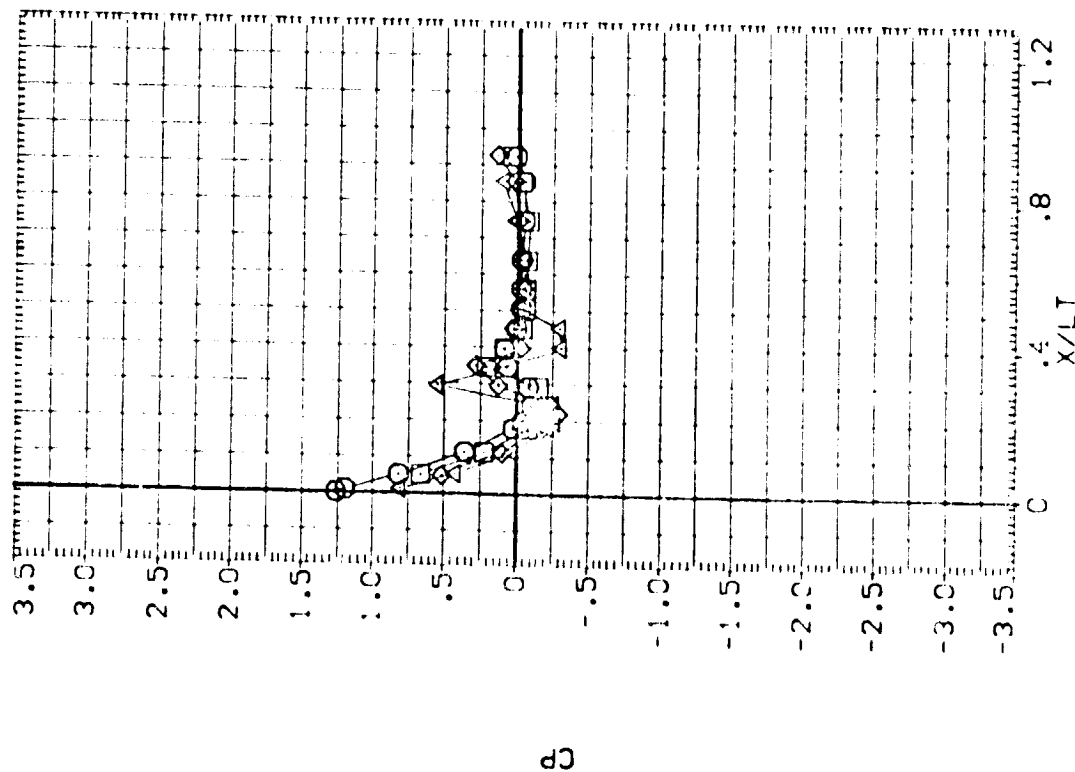
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+112+S12N25+AT11 EXTERNAL TANK (RB1140)

SYMBOL  
 ○  
 ◇  
 △

PHI .000  
 30.000  
 60.000  
 90.000

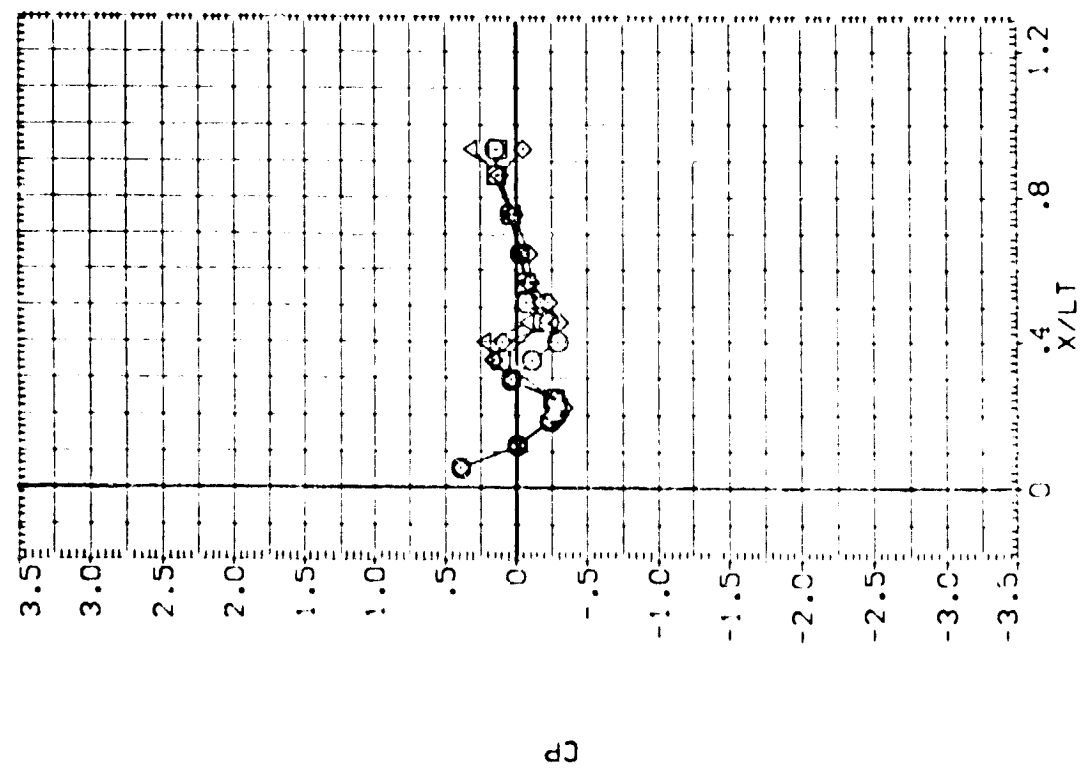
PARAMETRIC VALUES  
 MACH 1.400  
 RUDDER .000  
 ELEVON .000  
 SPOBRK .000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 EXTERNAL TANK (RB1T40)

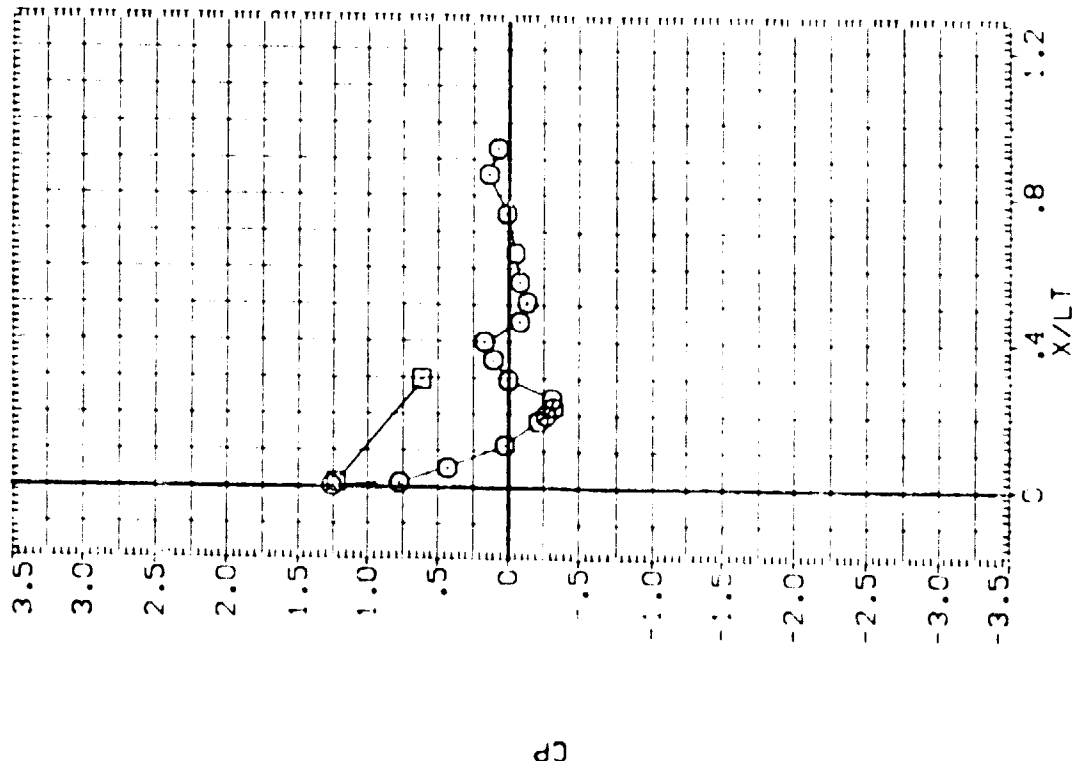
SYMBOL	PHI	BETAT	ALPHAT	PARAMETRIC VALUES
○	120.000	8.300	8.150	MACH .000
◇	135.000			ELEVON .000
△	150.000			RUDDER .000
	165.000			



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC:-716 1A14 01+T12+S12A25+AT11 EXTERNAL TANK (RB1T40)

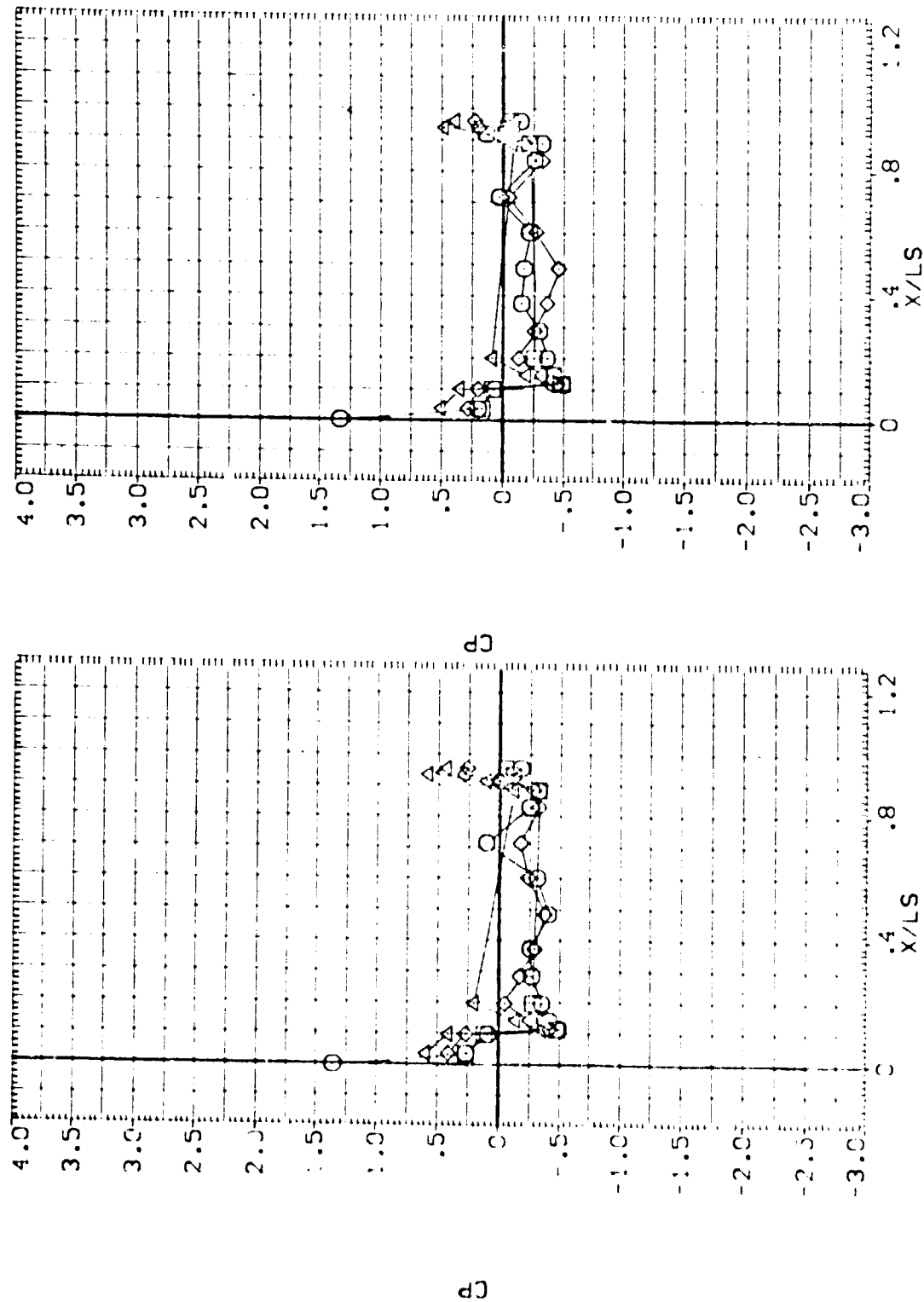
SYMBOL	PHI	BETAT	ALPHAT	PARAMETRIC VALUES		
○	180.000	8.300	8.150	MACH	ELEVON	.000
□	270.000			RUDDER	SPDRK	.000



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

ARC11-716 1A14 01+12+S12N25+AT10 SRM BOOSTER (RB1S33)

SYMBOL	PHI	BETAG	ALPHA0	PARAMETRIC VALUES		
				MACH	ELEVON	
○	.000	-7.960	-8.240	.000	.000	
◇	45.000	-3.980		.000	SP38PK	
△	90.000					
▽	135.000					



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

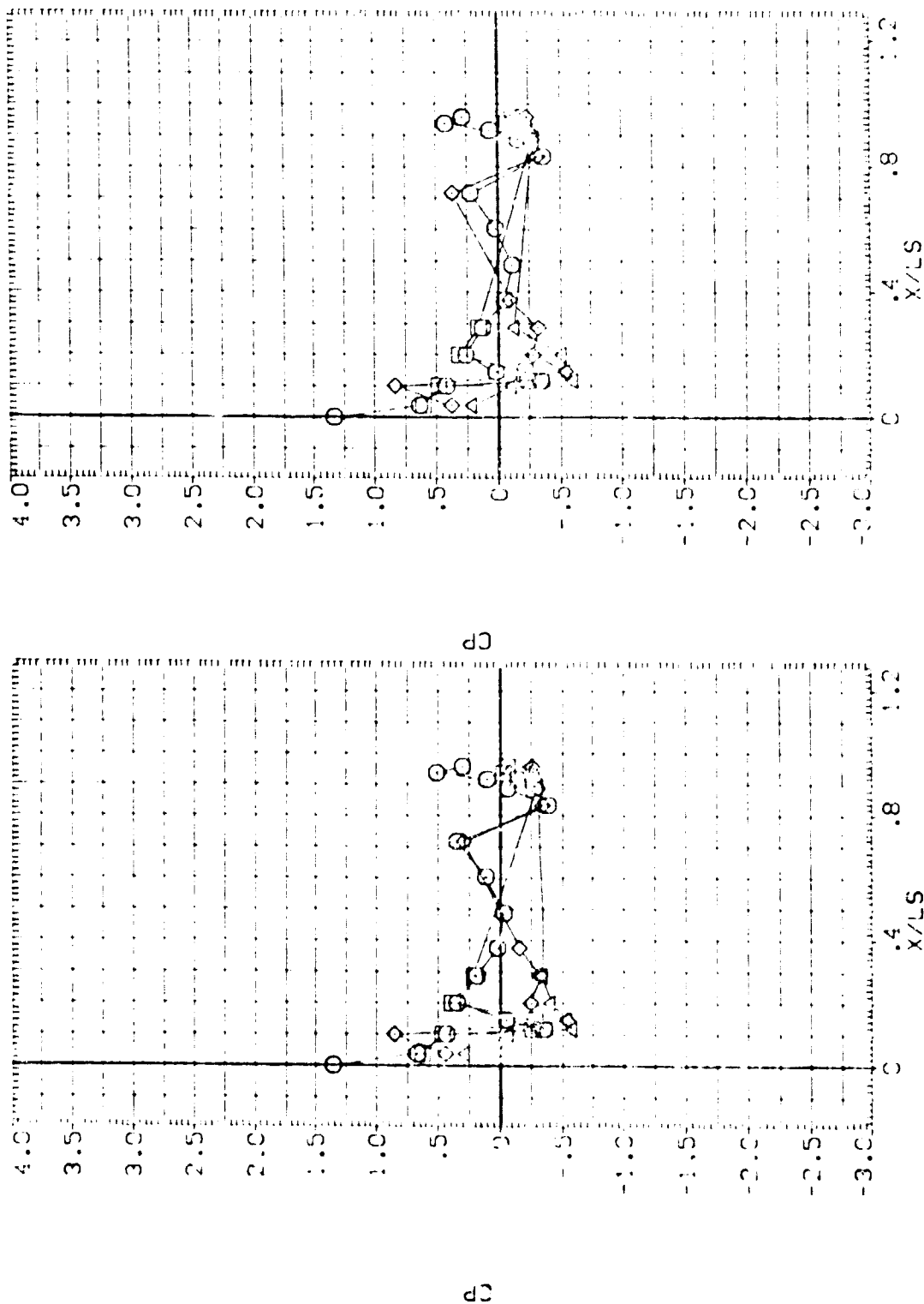


# ARC11-716 1A14 01+12+S12N25+AT10 SRM BOOSTER (RB1S33)

SYMBOL  
 ○  
 ◇  
 △

PHI BETAS ALPHA  
 180.000 -7.960 -8.240  
 225.000 -3.980  
 270.000  
 315.000

PARAMETRIC VALUES  
 MACH 1.250 ELEVON .000  
 RUDDER .000 SPOON .000



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC11-716 1A14 01+T12+S12N25+A110 SRM BOOSTER (RB1S33)

SYMBOL

○ □ ◇ △

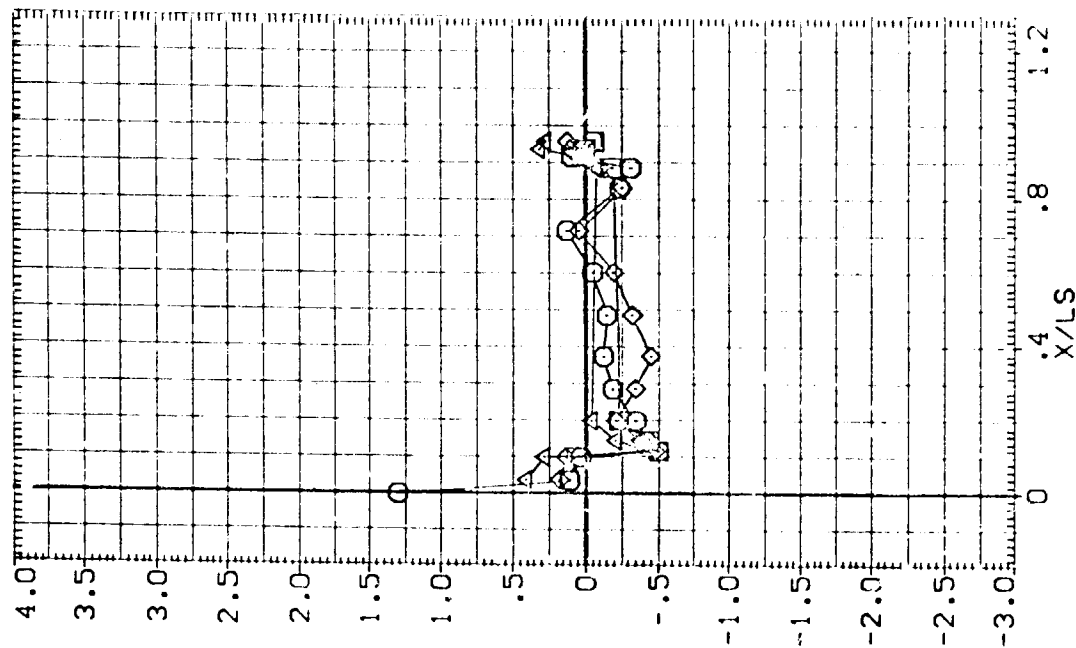
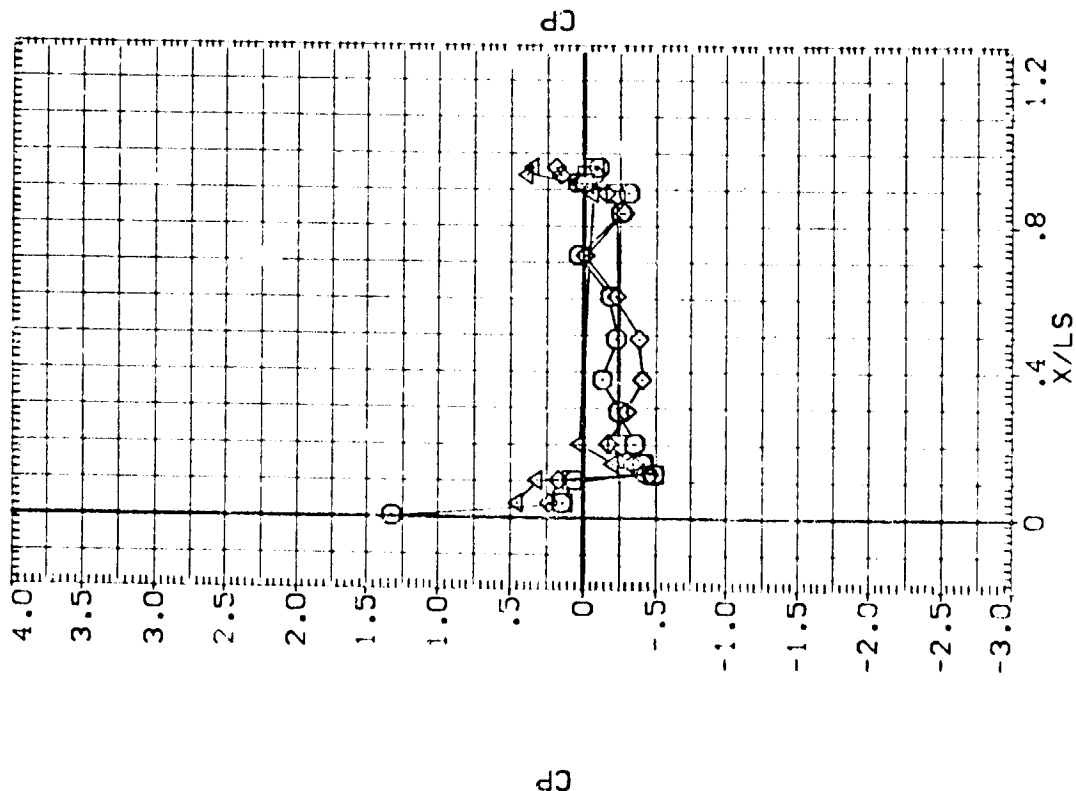
PHI .000  
45.000  
30.000  
135.000

BETA0 -1.950  
.010

ALPHA0 -6.250

MACH .000  
RUDDER .000

PARA ETRIC VALUES  
1.250 ELEVON  
.000 SPOBRK



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

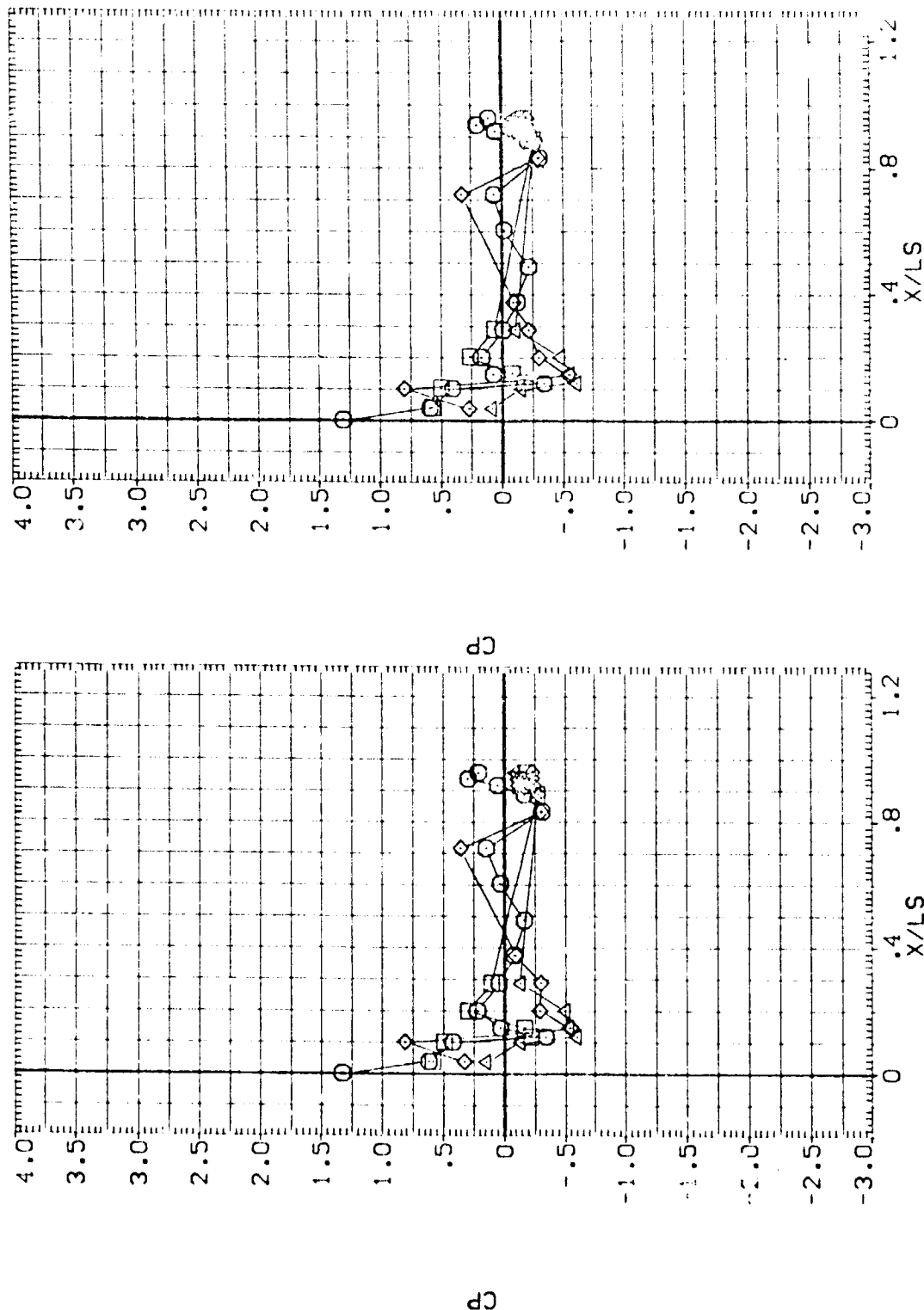
ARC11-716 1A14 01+T12+S12N25+AT10 SRM BOOSTER (RB1S33)

SYMBOL

○ 180.000  
 □ 225.000  
 ◇ 270.000  
 △ 315.000

BETA0 -1.990  
 ALPHA0 -8.250  
 .010

PARAMETRIC VALUES  
 MACH 1.250  
 RUDDER .000  
 ELEVON .000  
 SPUBRK .000



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

# ARC11-716 1A14 01+T12+S12N25+AT10 SRM BOOSTER (RB1S33)

SYMBOL

○ □ ◇ △

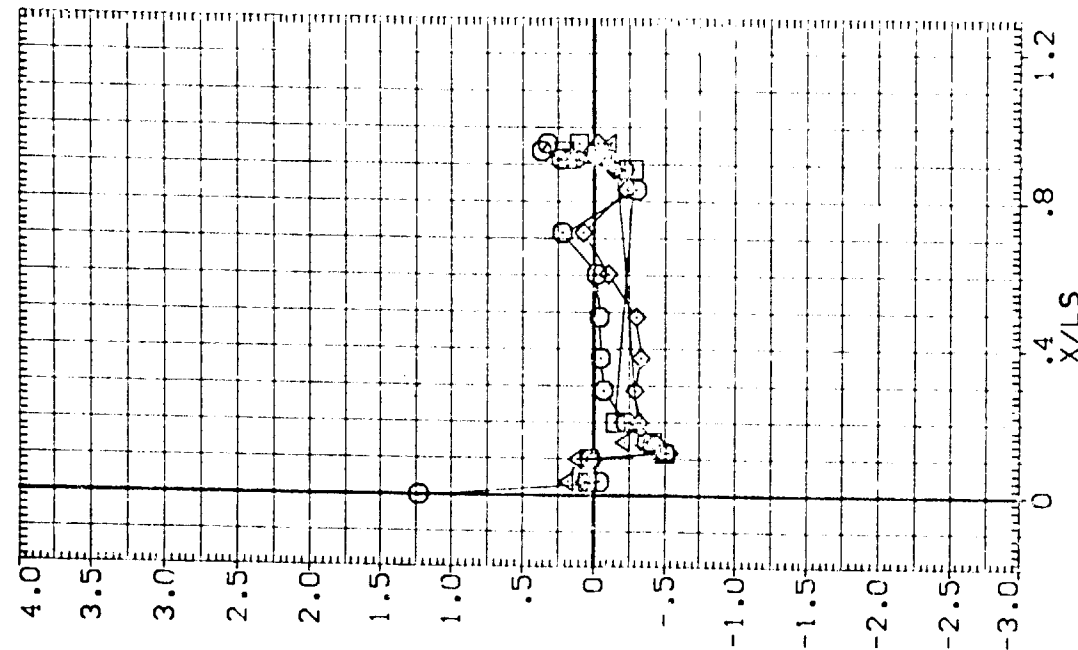
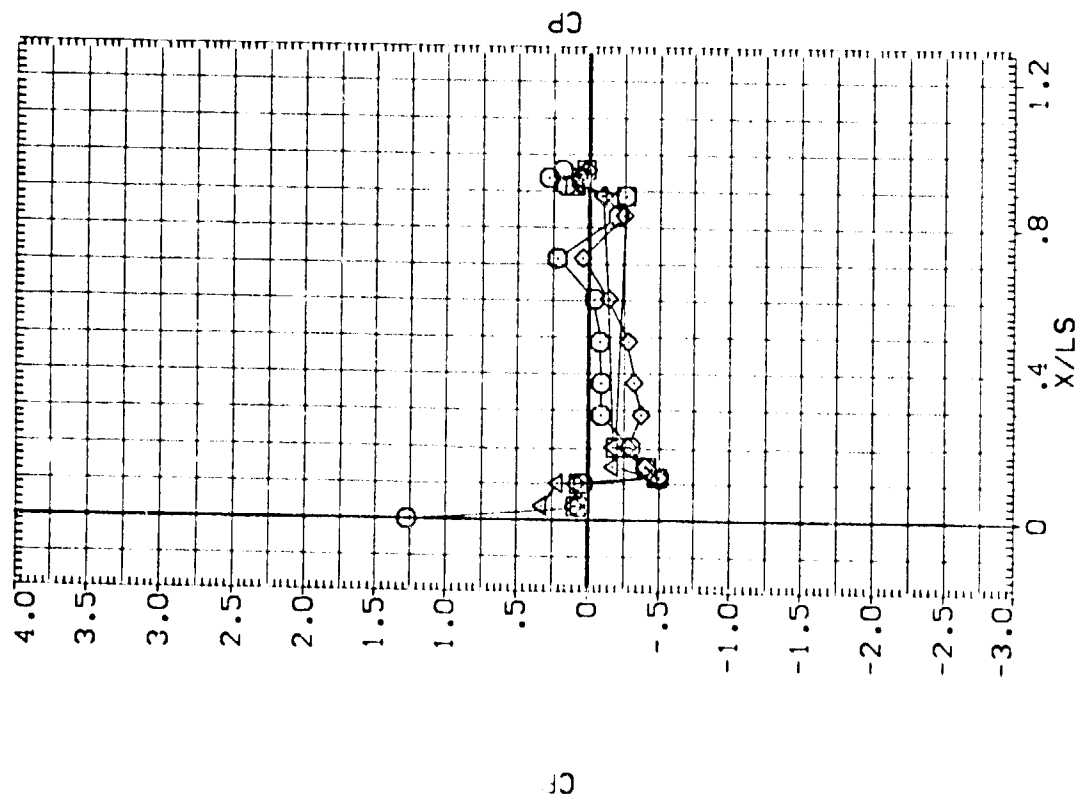
PHI .000  
45.000  
29.000  
135.000

BETA0 4.040  
8.100

ALPHA0 -8.230

MACH 1.250  
RUDDER .000

PARAMETRIC VALUES  
ELEVON .000  
SPOBRK .000

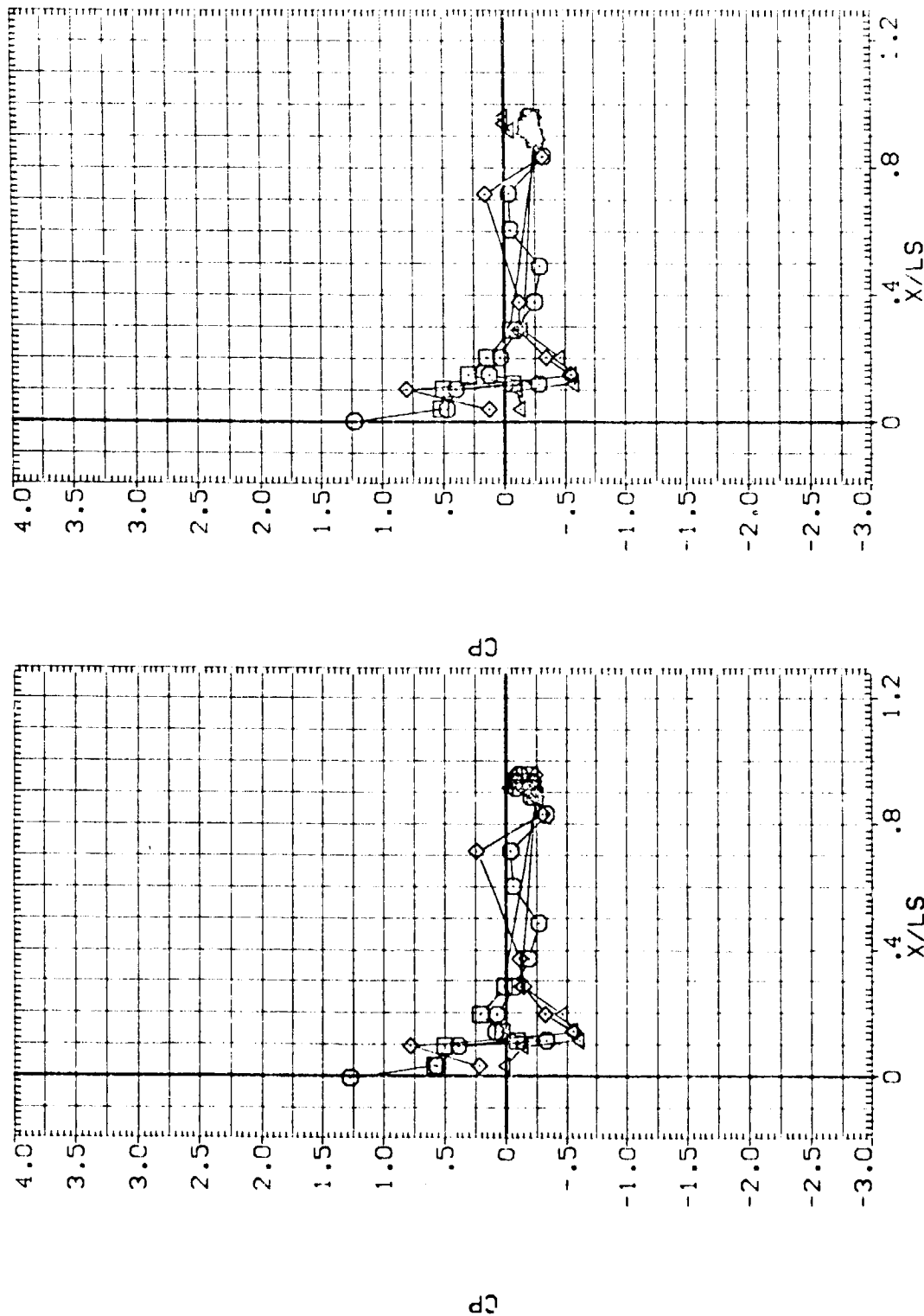


LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC11-716 IA14 01+T12+S12N25+AT10 SRM BOOSTER (RB1S33)

PARAMETRIC VALUES  
MACH 1.250 ELEVON .000  
RUDDER .000 SPOILER .000

SYMBOL PHI BETA0 ALPHA0  
180.000 4.040 -8.230  
275.000 8.100  
270.000  
315.000



ARC11-716 IA14 01+T12+S12N25+AT10 SRM BOOSTER (RB1S33)

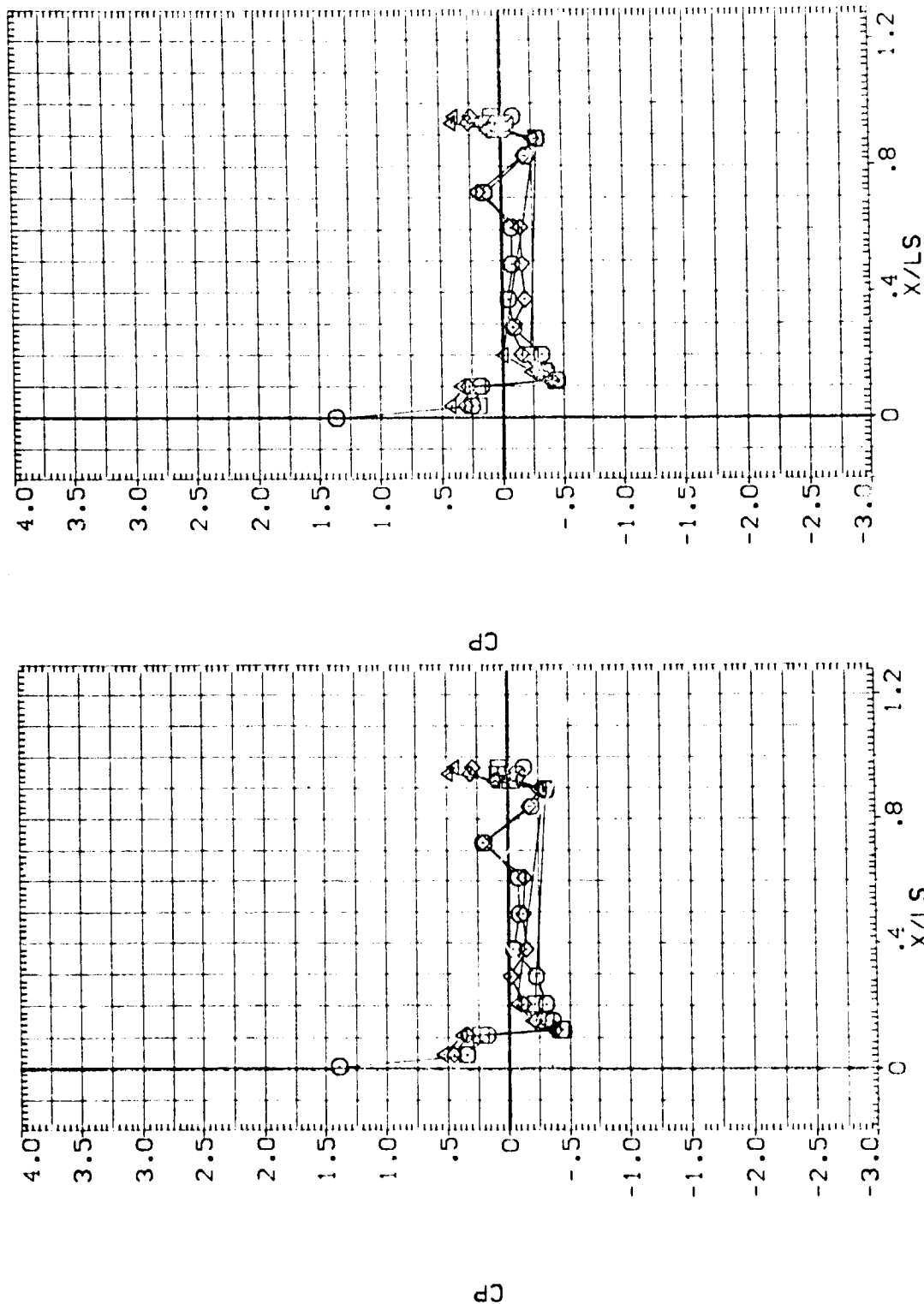
SYMBOL  
 ○ □ ◇ △

PHI .000  
 45.000  
 90.000  
 135.000

BETA0  
 -7.990  
 -3.950

ALPHA0  
 -4.230

PARAMETRIC VALUES  
 MACH 1.750  
 RUDDER .000  
 ELEVON .000  
 SPDRK .000



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC11-716 1A14 01+112+512N25+AT10 SRM BOOSTER (RB1S33)

SYMBOL

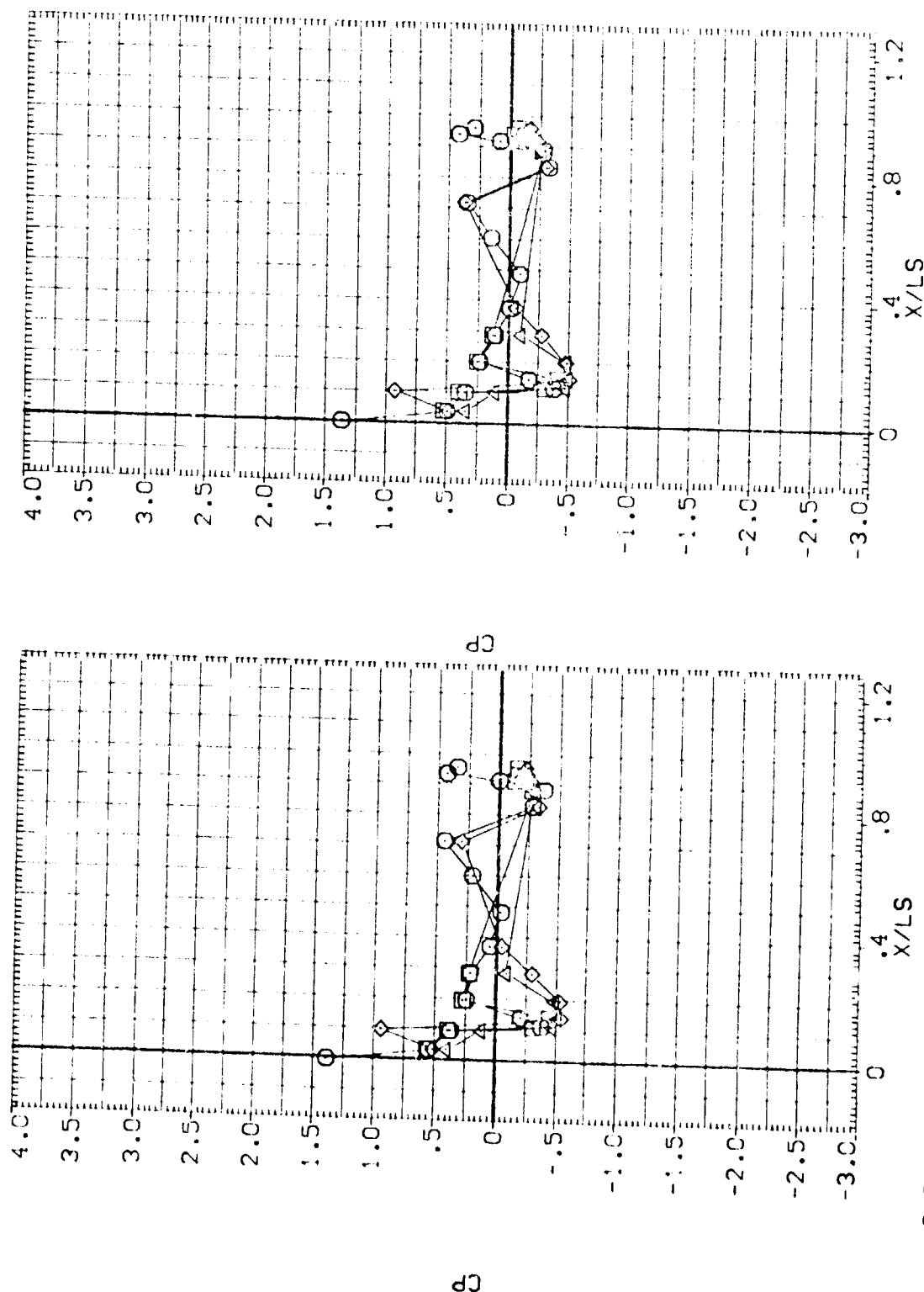
PHI 180.000  
225.000  
270.000  
315.000

BETA0 -7.990  
-3.950

ALPHA0 -4.230

MACH 1.250  
RUDDER .000

PARAMETRIC VALUES  
ELEVON .000  
SPOBRK .000



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

# ARC11-716 IA14 01+T12+S12N25+AT10 SRM BOOSTER (RB1S33)

SYMBOL  
 ○  
 □  
 ◇  
 △

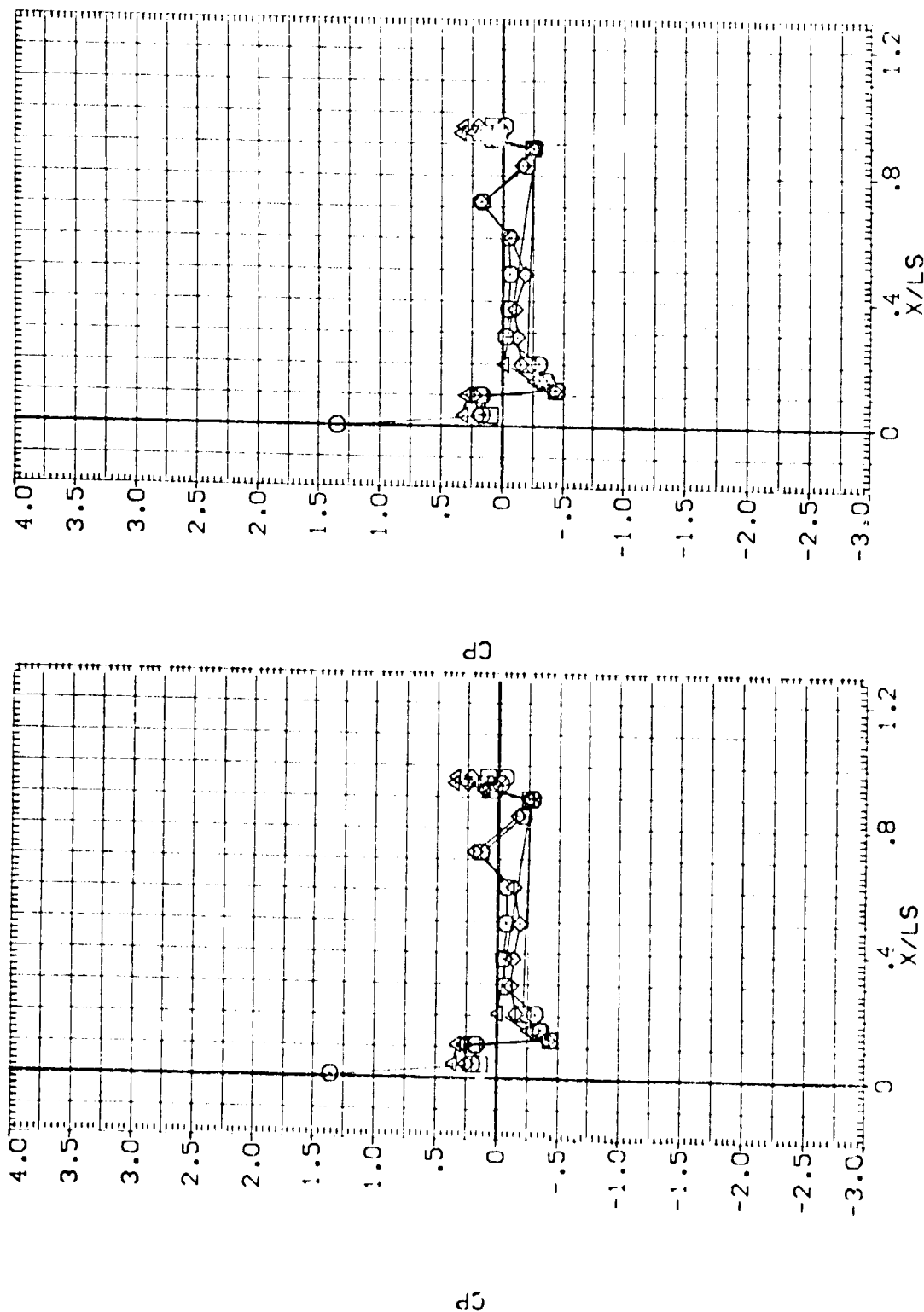
PHI .000  
 45.000  
 90.000  
 135.000

BETAG -2.020  
 -0.010

ALPHA0 -4.150

MACH .000  
 RUDDER .000  
 ELEVON 1.250  
 SPOBRK .000

PARAMETRIC VALUES

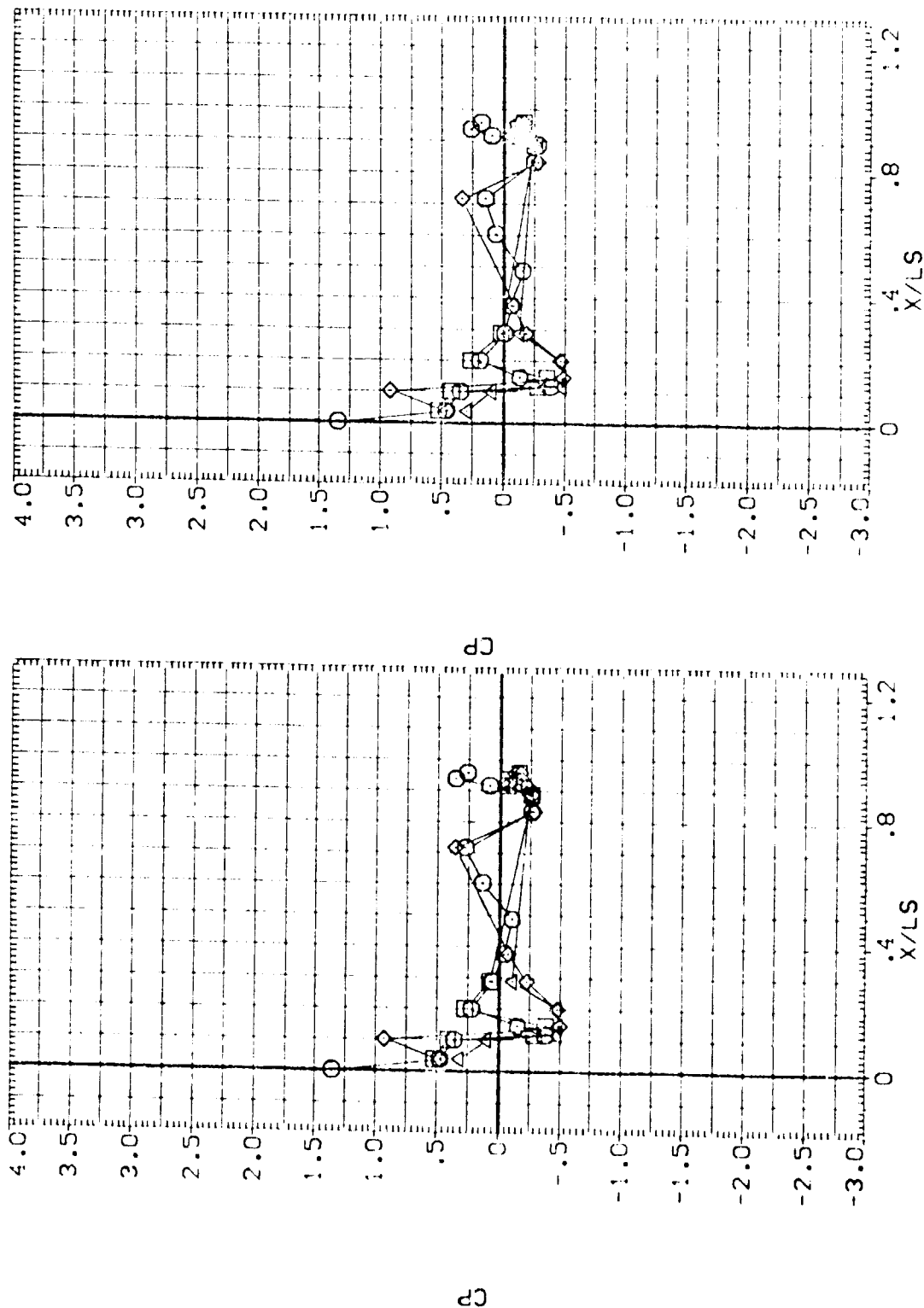


LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES



ARC11-716 1A14 01+T12+S12N25+AT10 SRM BOOSTER (RB1533)

SYMBOL	PHI	BETA0	ALPHA0	MACH	PARAMETRIC VALUES
○	180.000	-2.020	-4.150	1.250	ELEVON .000
□	225.000	-	-	.000	SPDBRK .000
◇	270.000	-	-		
△	315.000	-	-		



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 SRM BOOSTER (RB1S33)

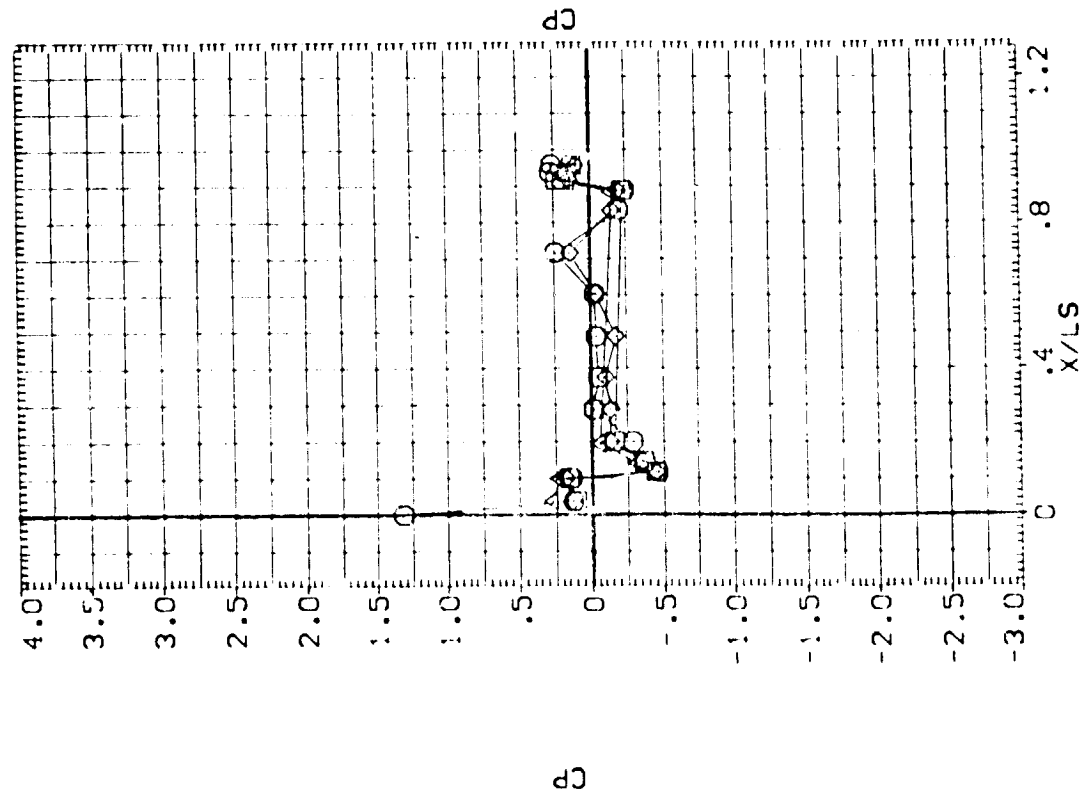
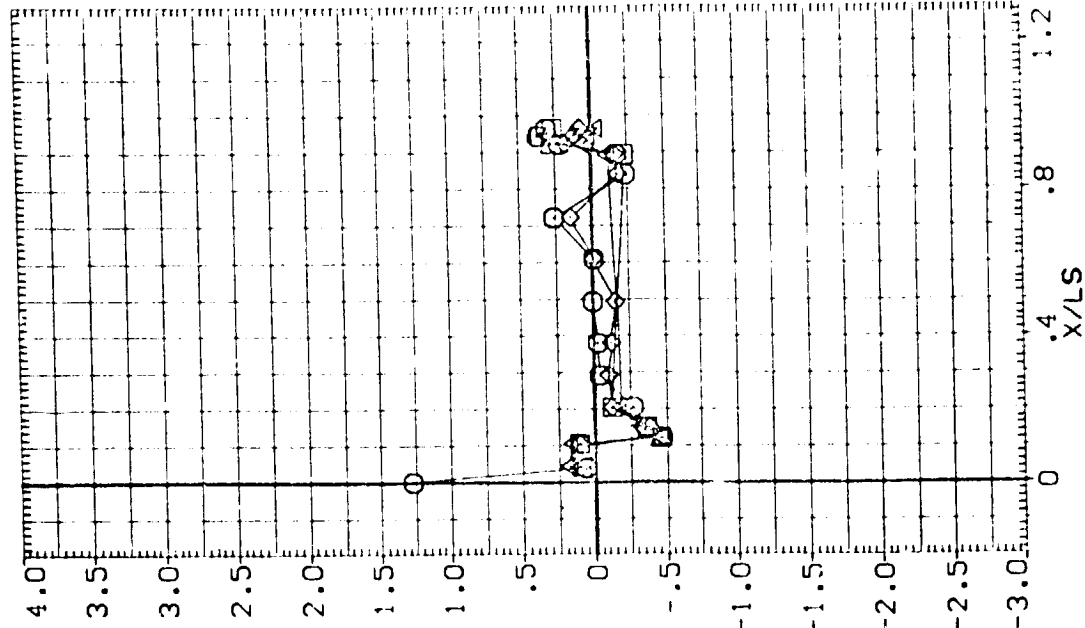
SYMBOL  
O  
◇  
△

PHI  
.000  
45.000  
90.000  
135.000

BETA0  
4.090  
8.060

ALPHA0  
-4.200

PARAMETRIC VALUES  
MACH 1.250  
RUDDER .000  
ELEVON .000  
SPDBRK .000

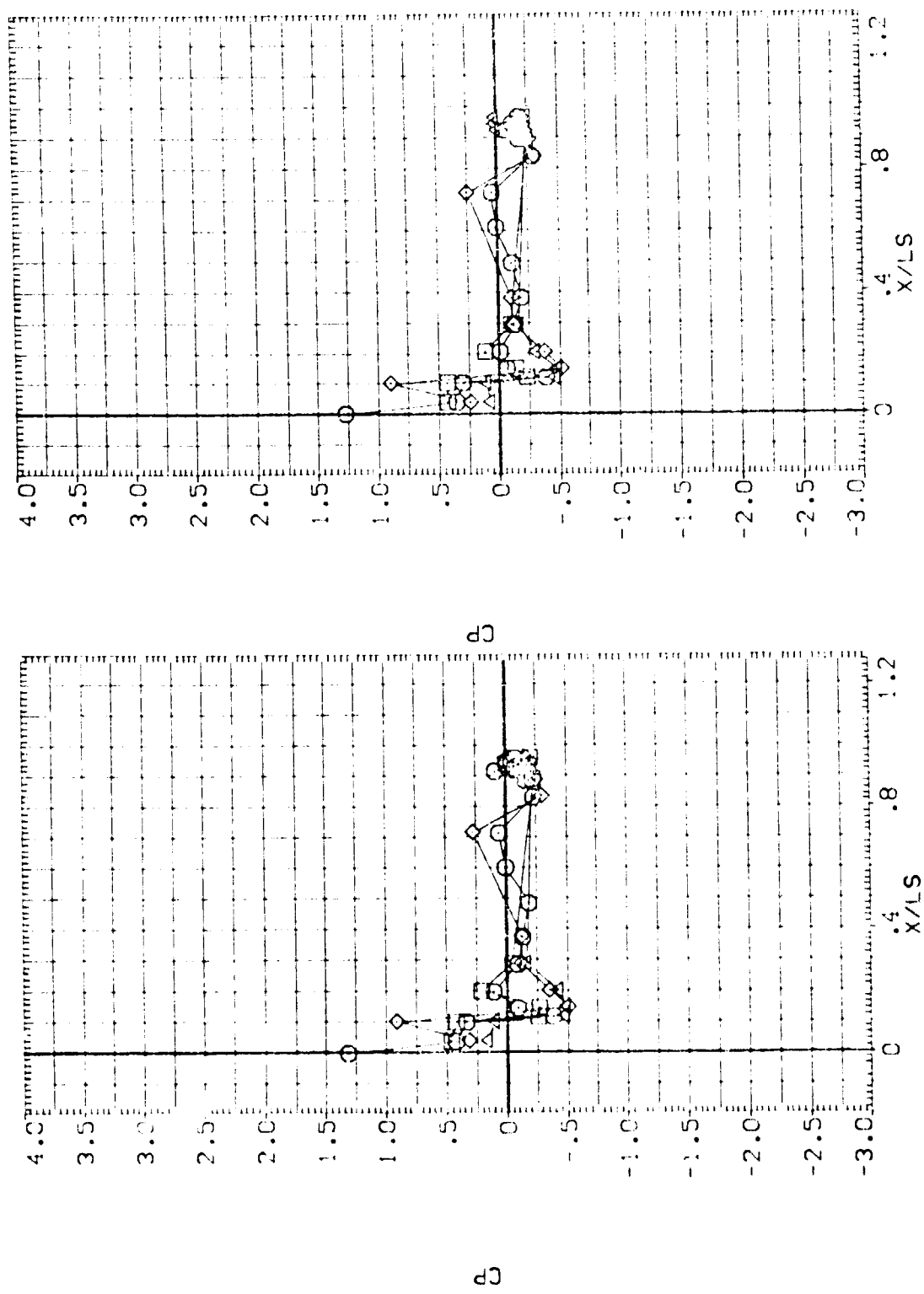


LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC:-716 :A14 01+T12+S12N25+AT10 SRM BOOSTER (RB1S33)

PARAMETRIC VALUES  
 MACH 1.250  
 ELEV 0.000  
 RUDDER 0.000  
 SPOBRK 0.000

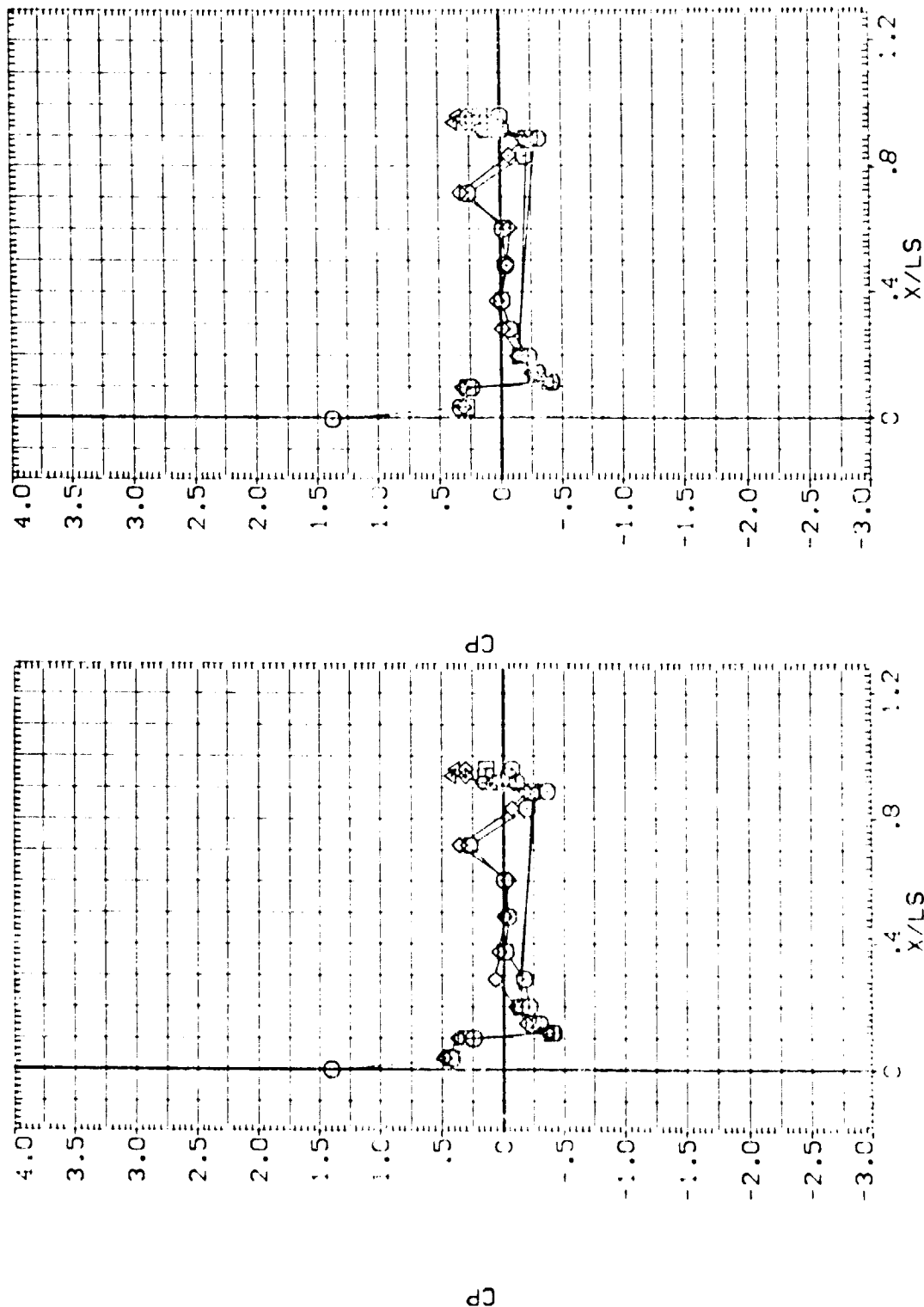
SYMBOL PHI BETA ALPHA  
 O 180.000 4.090 -4.200  
 □ 225.000 9.080  
 △ 270.000 315.000



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

# ARC11-716 1A14 01+T12+S12N25+AT10 SRM BOOSTER (RB1S33)

SYMBOL	PHI	BETA	ALPHA	PARAMETRIC VALUES		
				MACH	ELEVON	
○	.000	-8.420	-7.730	1.250	.000	.000
◇	45.000	-4.140		.000	SPDS	.000
△	90.000					
▽	135.000					



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC:-7:6 (A14 C:+T12+S12N25+T10 SRM BOOSTER (R31S33))

SYMBOL

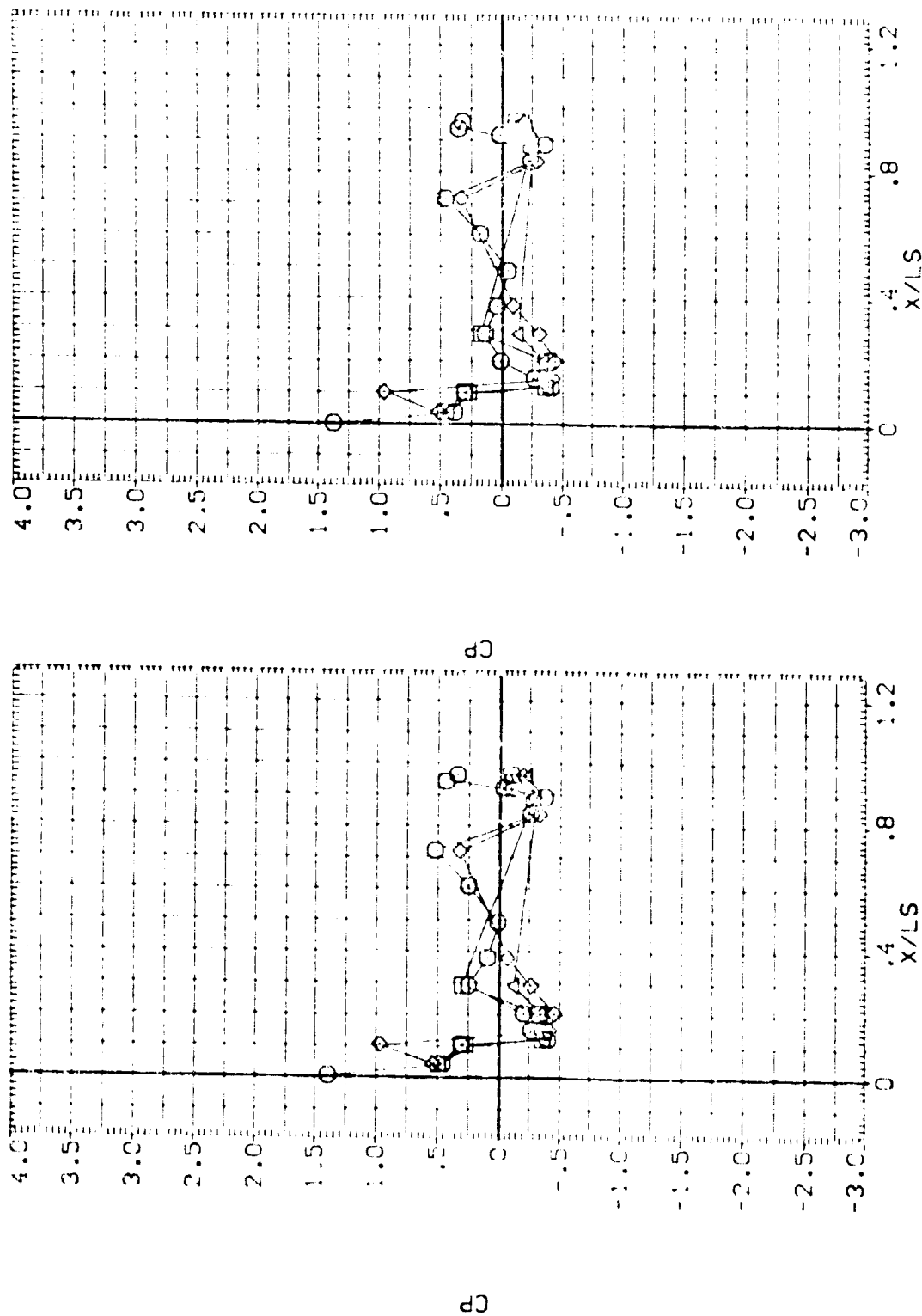
P-1  
180.000  
275.000  
275.000  
315.000

BETA0 -8.420  
-4.140

ALPHA0 -7.30

MACH  
R000R

PARAMETRIC VALUES  
1.250 ELEVON  
.000 SPOILER  
.000



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

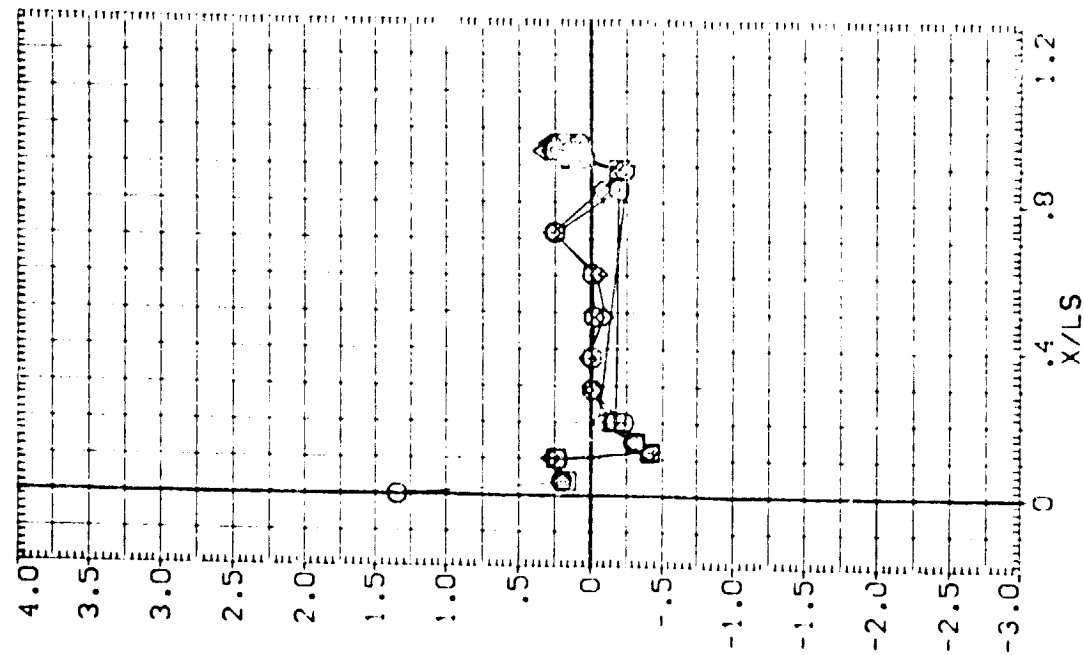
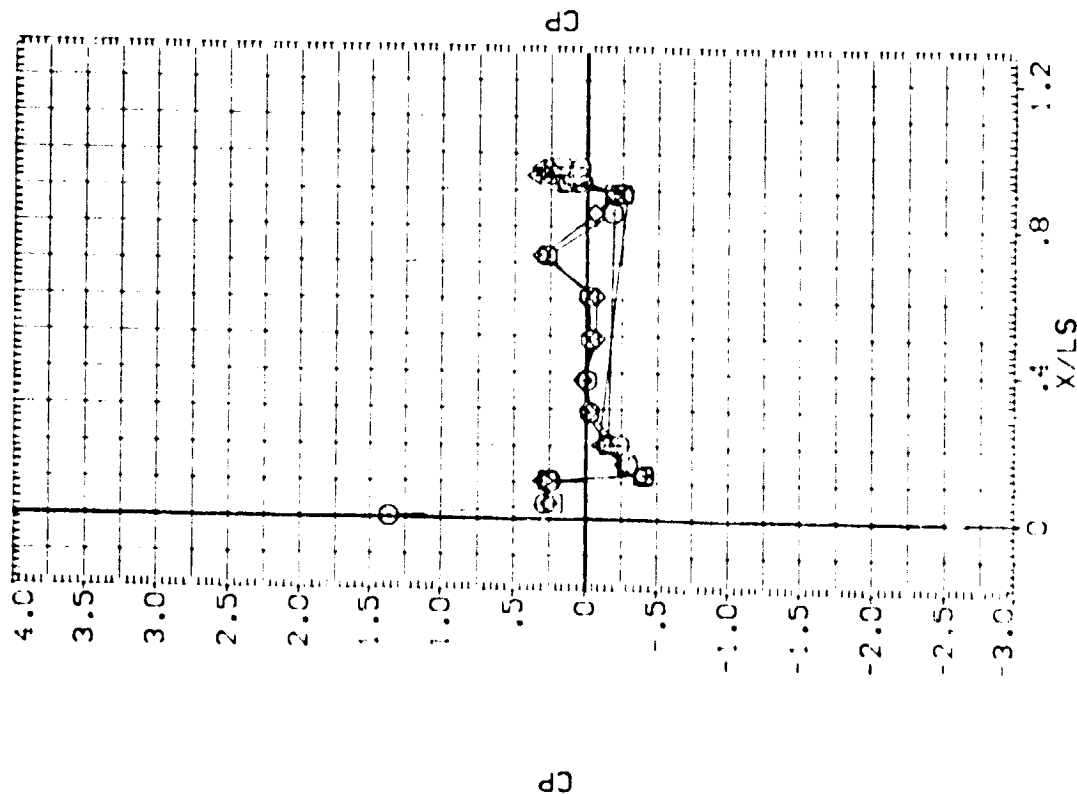
ARC:1-716 1A14 01+T:2+S:2N25+AT10 SRM BOOSTER (RB:533)

SYMBOL  
○  
◇  
△

PMI .000  
45.000  
90.000  
135.000

BETA0 -2.060  
ALPHA0 -.700  
COC

PARAMETRIC VALUES  
MACH 1.250  
ELEVON .000  
RUDDER .000  
SPOBRK .000

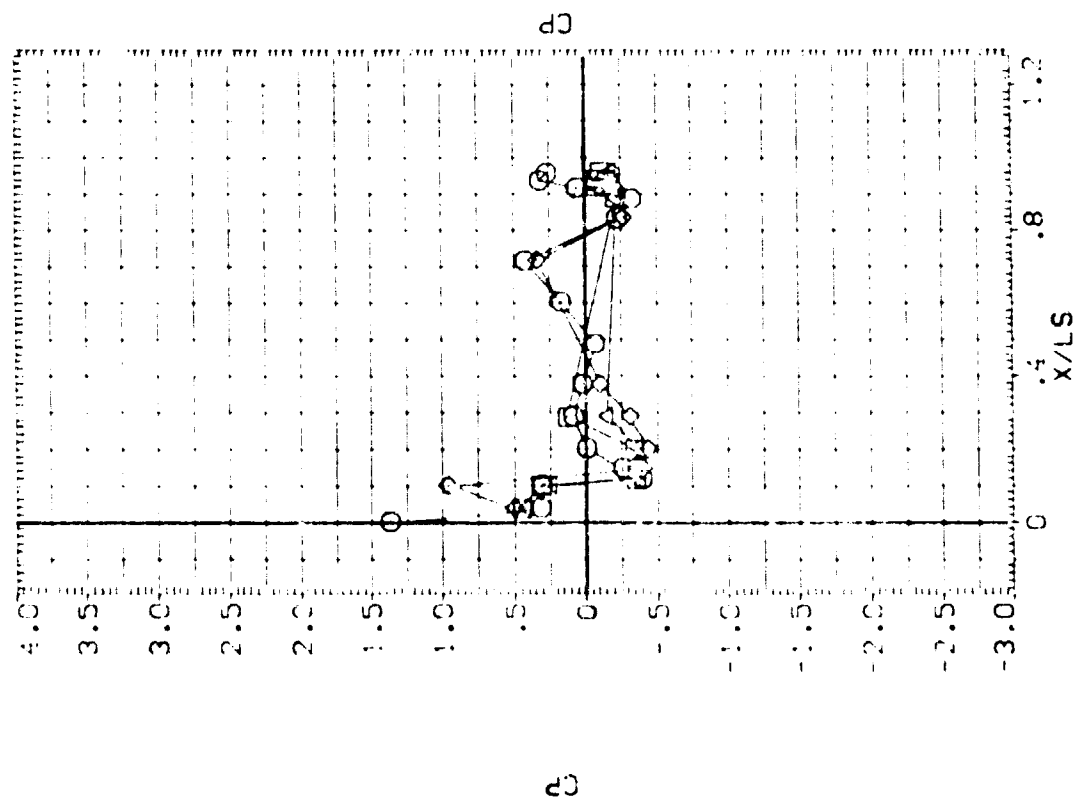
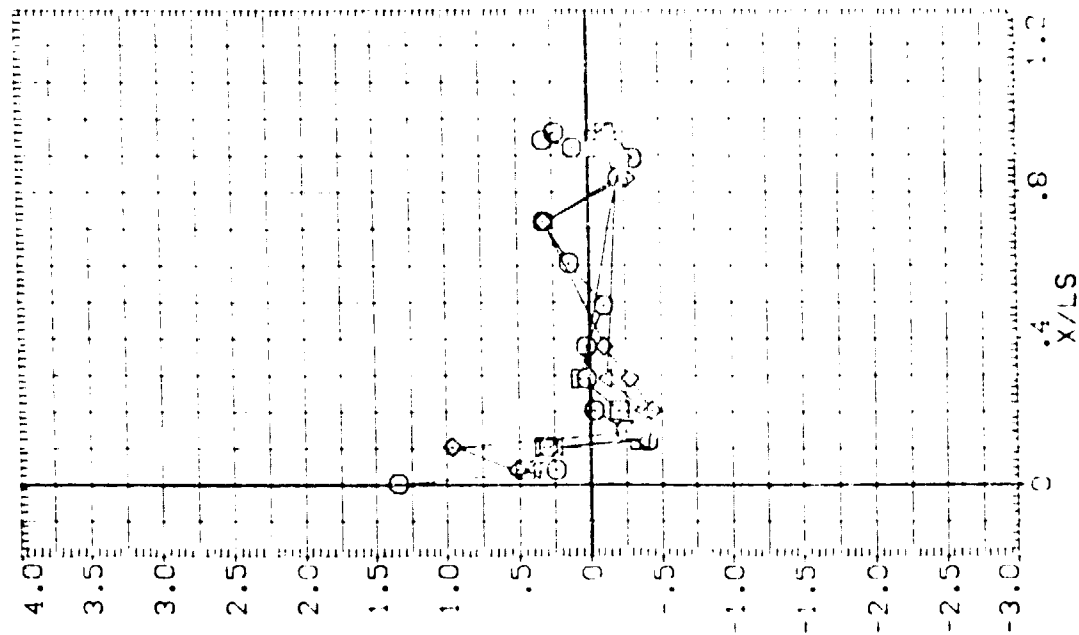


LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC:1-716 .A14 01+T12+S12A25+AT10 SRM BOOSTER (R81S33)

PARAMET C VALUES  
MACH 1.250 ELEVON .000  
RUDDER .000

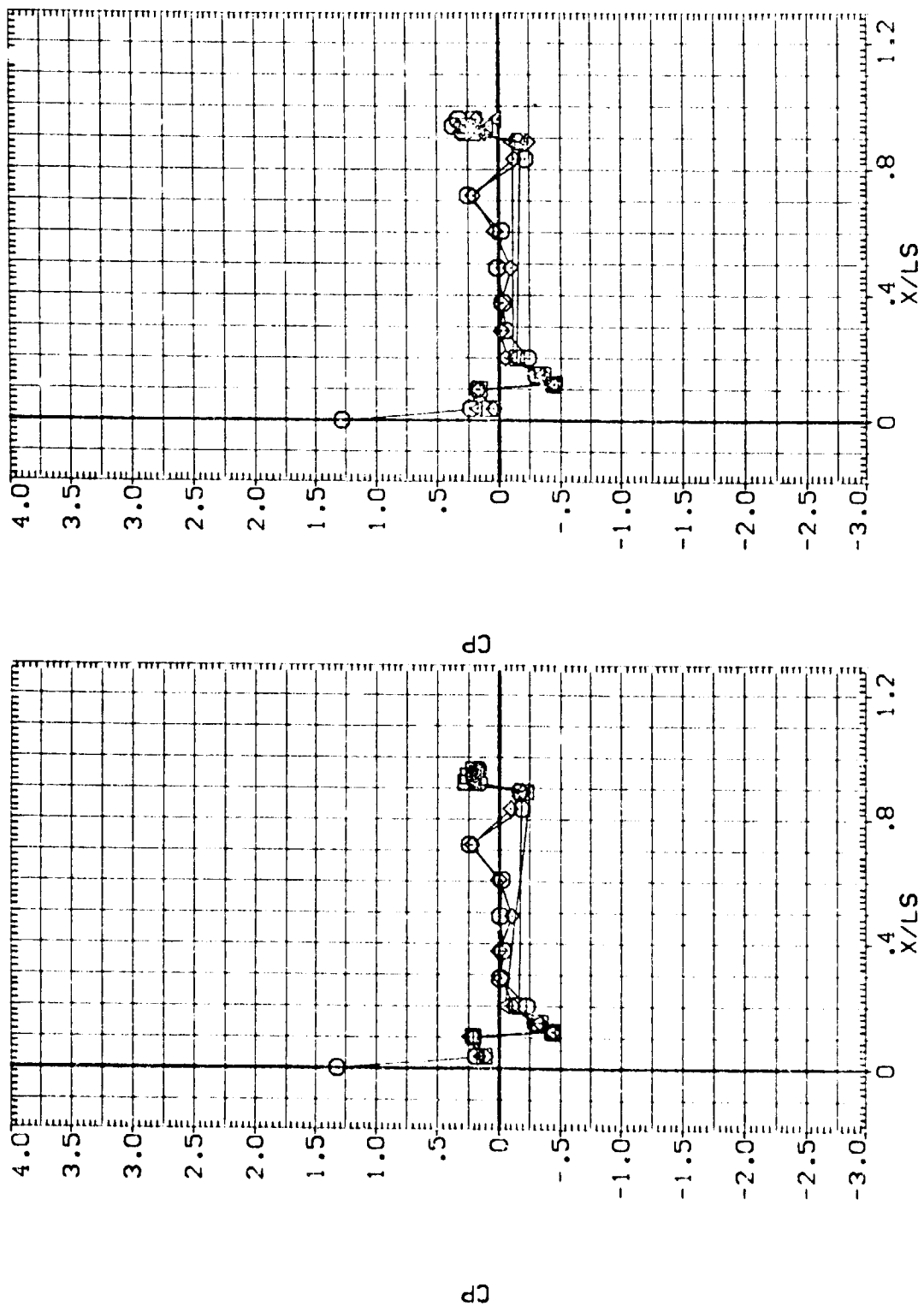
SYMBOL P-11 BETAD ALPHAD  
180.000 -2.080 -1.000  
225.000 .030  
270.000  
315.000



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

# ARC11-716 IA14 01+T12+S12N25+AT10 SRM BOOSTER (RB1S33)

SYMBOL	PHI	BETA	ALPHA	PARAMETRIC VALUES		
				MACH	ELEVON	
○	.000	4.270	-7.10	1.250	.000	.000
□	45.000	8.130		.000	SPOBRK	.000
◇	90.000					
△	135.000					



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES



ARC11-716 IA14 01+T12+S12N25+AT10 SRM BOOSTER (RB1S33)

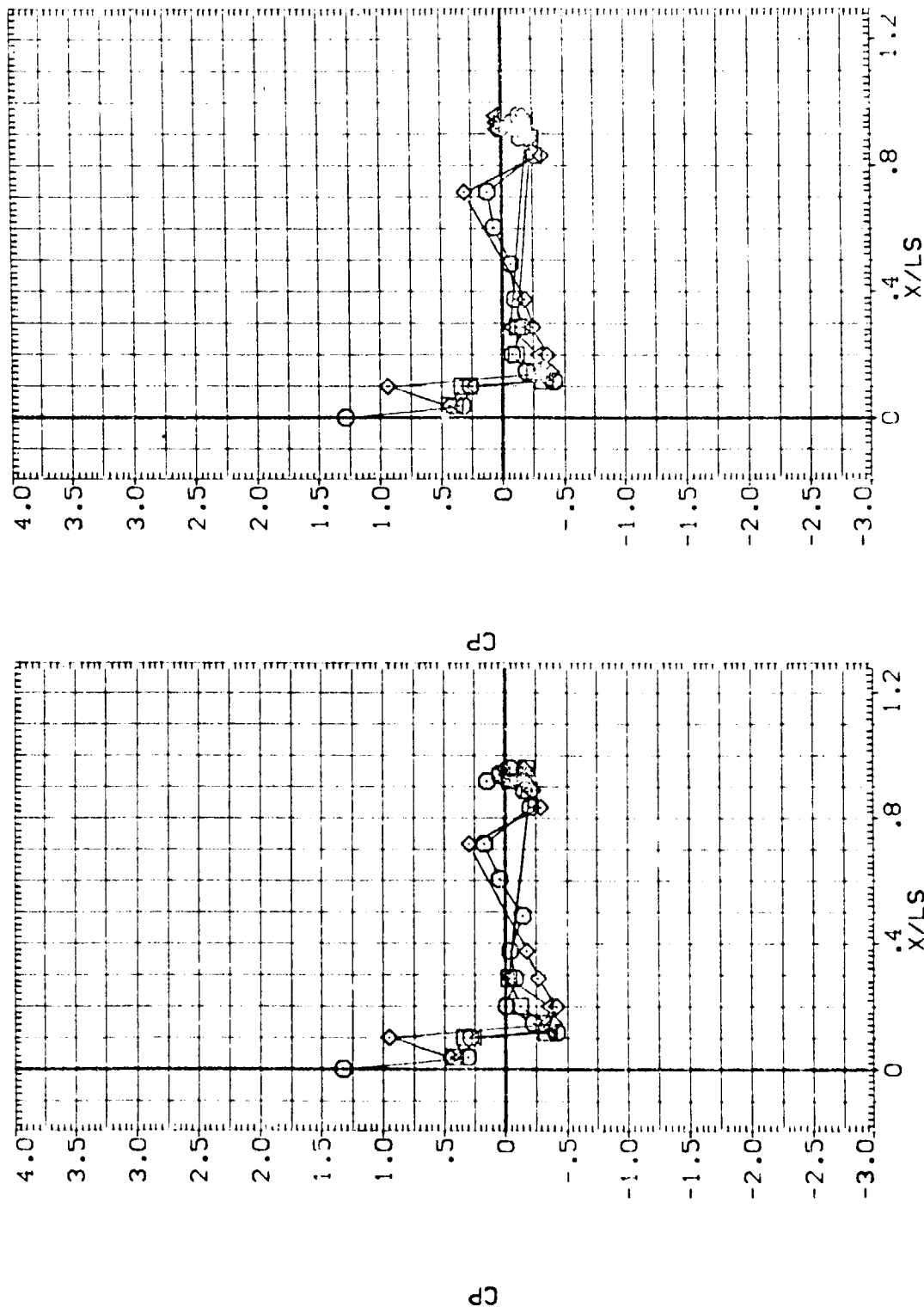
SYMBOL

PHI 180.000  
225.000  
270.000  
315.000

BETA0 4.270  
8.130

ALPHA0 -7.10

PARAMETRIC VALUES  
MACH 1.250  
ELEVON .000  
RUDDER .000  
SPDRK .000



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC11-716 IA14 01+T12+S12N25+AT10 SRM BOOSTER (RB1S33)

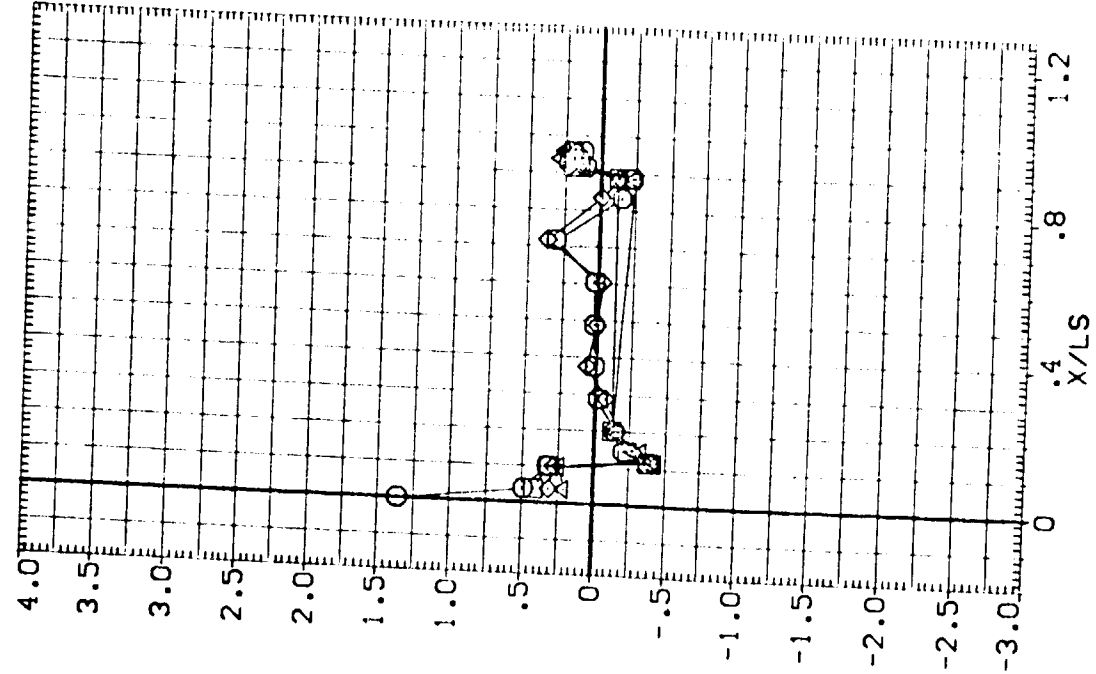
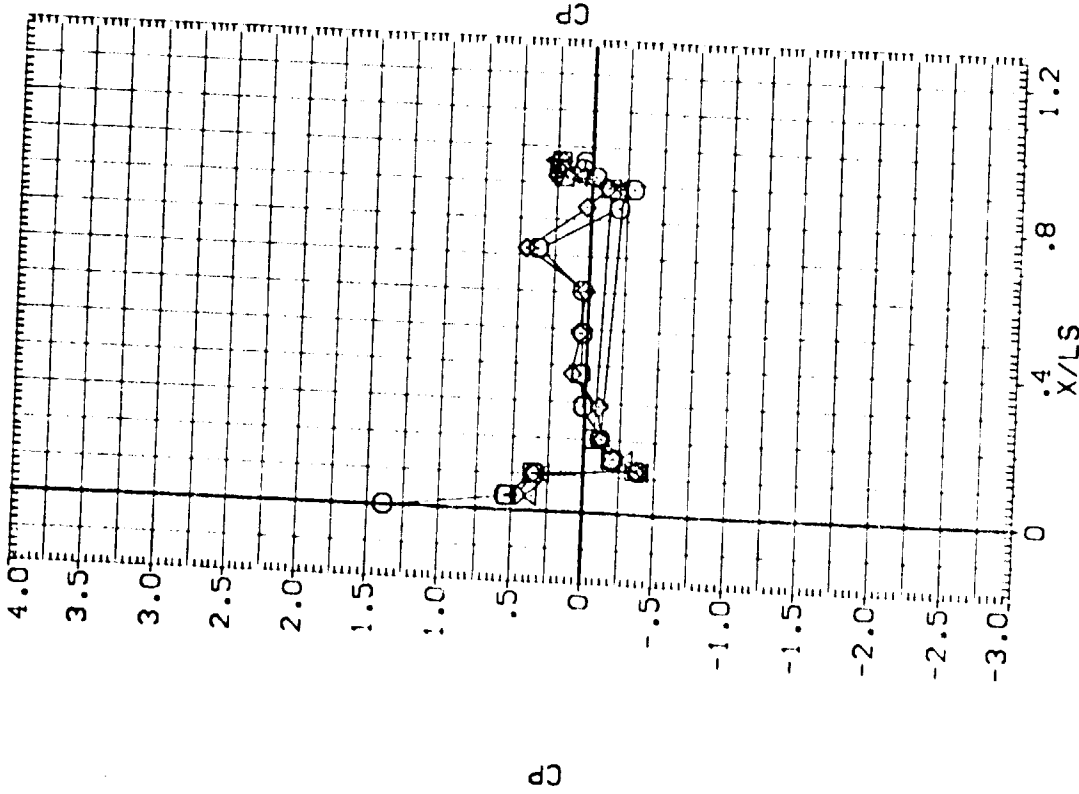
SYMBOL  
 ○  
 ◇  
 △

PHI  
 .000  
 45.000  
 90.000  
 135.000

BETA  
 -8.090  
 -3.970

ALPHA  
 4.200

PARAMETRIC VALUES  
 MACH 1.250  
 RUDDER .000  
 ELEVON .000  
 SPOILER .000



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC:-7:6 IAI4 01+T12+S12N25+AT10 SRM BOOSTER (RB1S33)

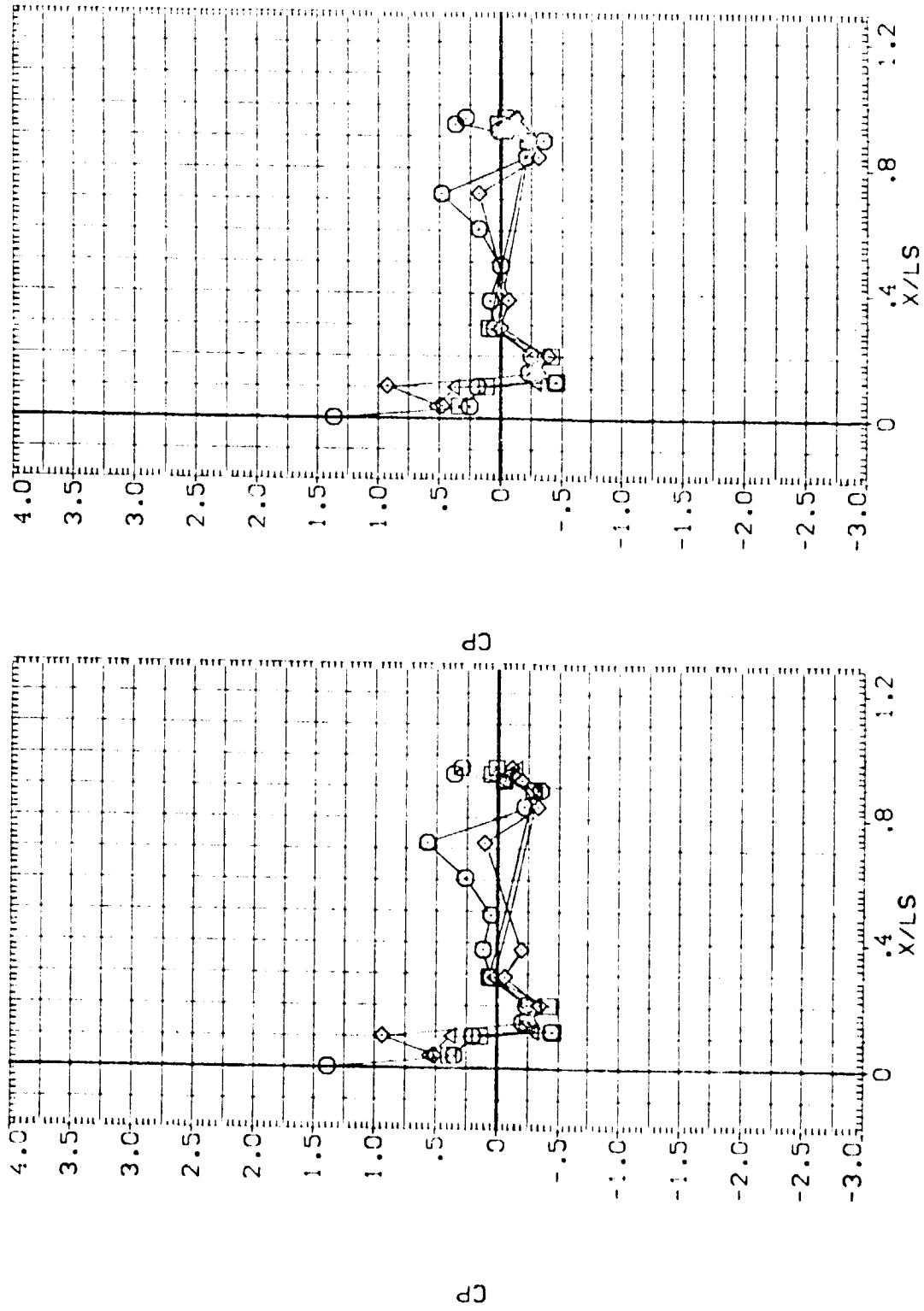
SYMBOL  
 ○  
 □  
 ◇  
 △

PHI  
 180.000  
 225.000  
 270.000  
 315.000

BETA0  
 -8.090  
 -3.970

ALPHA0  
 4.200

PARAMETRIC VALUES  
 MACH 1.250  
 RUDDER .000  
 ELEVON .000  
 SPOILER .000



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 SRM BOOSTER (RB1S33)

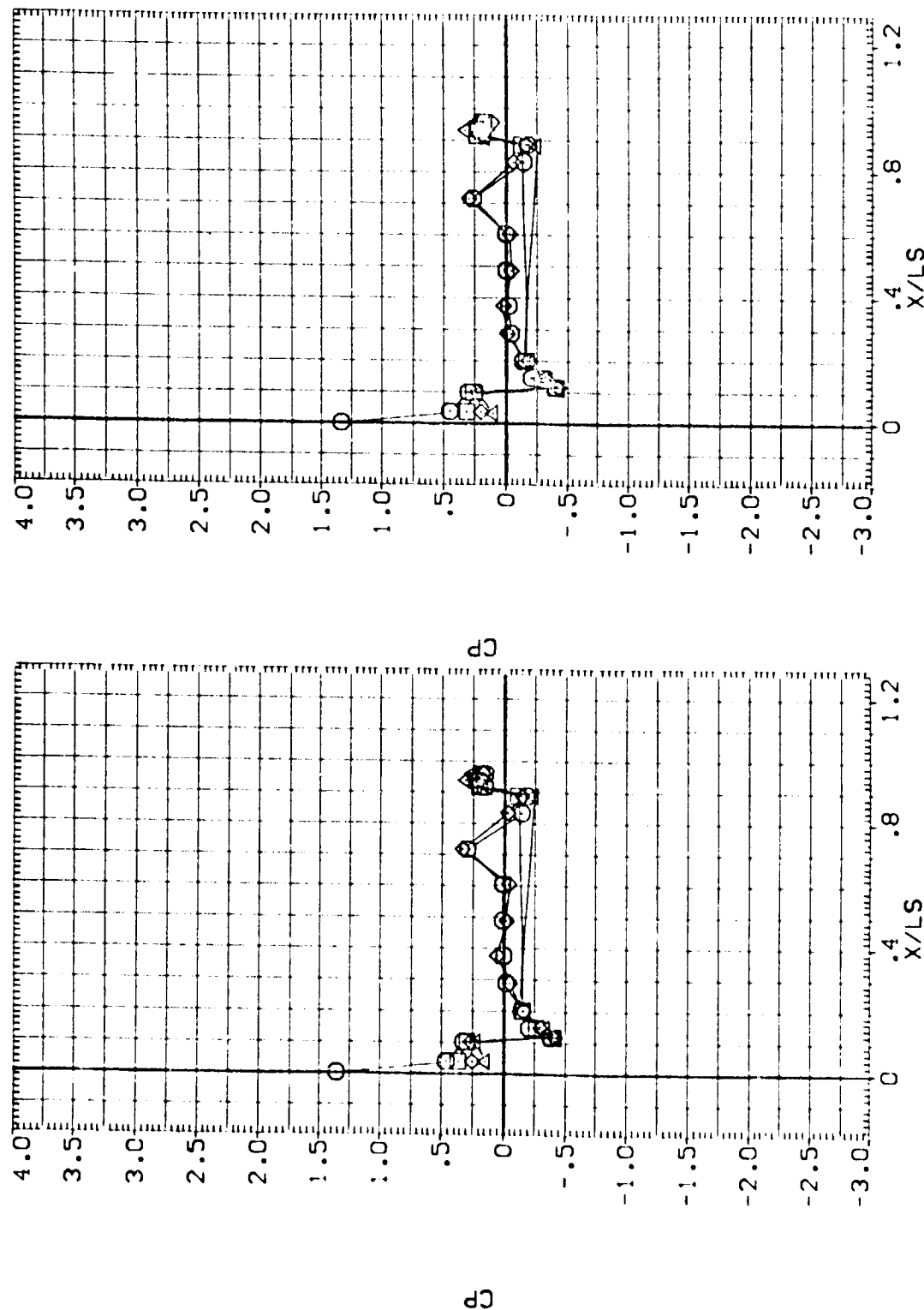
SYMBOL  
 ○ □ ◇ △

PHI .000  
 45.000  
 90.000  
 135.000

BETA0  
 -2.000  
 -.070

ALPHA0  
 4.220

PARAMETRIC VALUES  
 MACH 1.250  
 RUDDER .000  
 ELEVON .000  
 SPDBRK .000

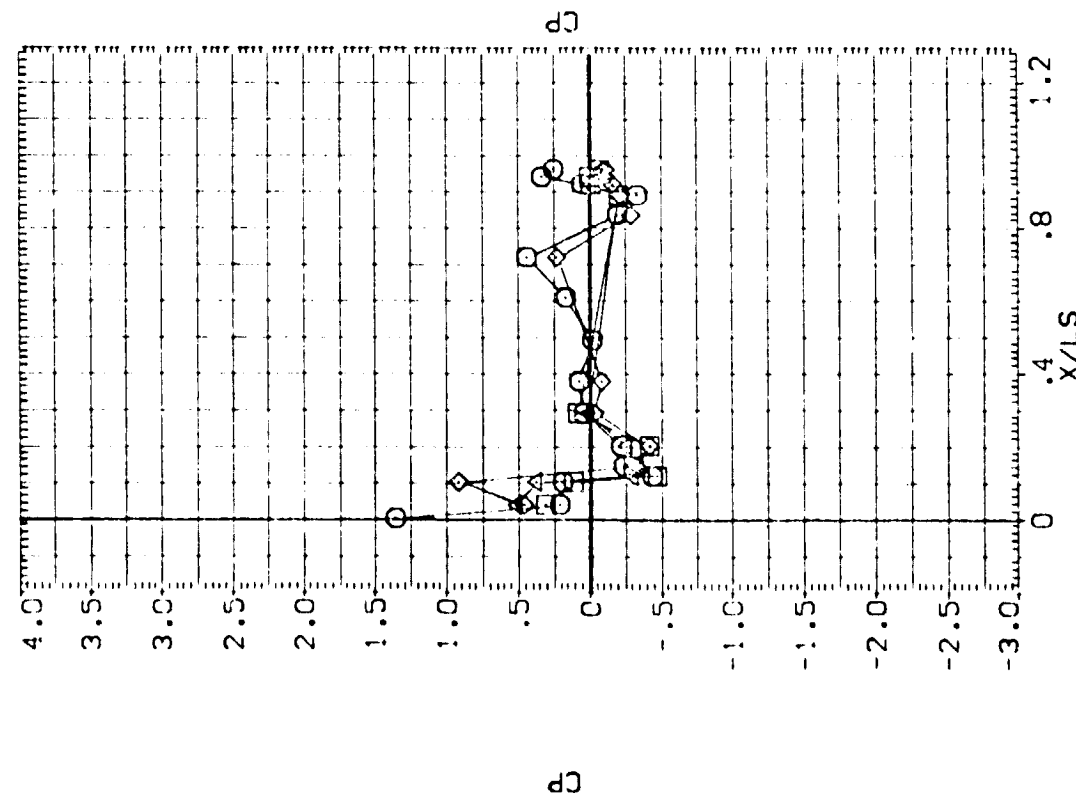
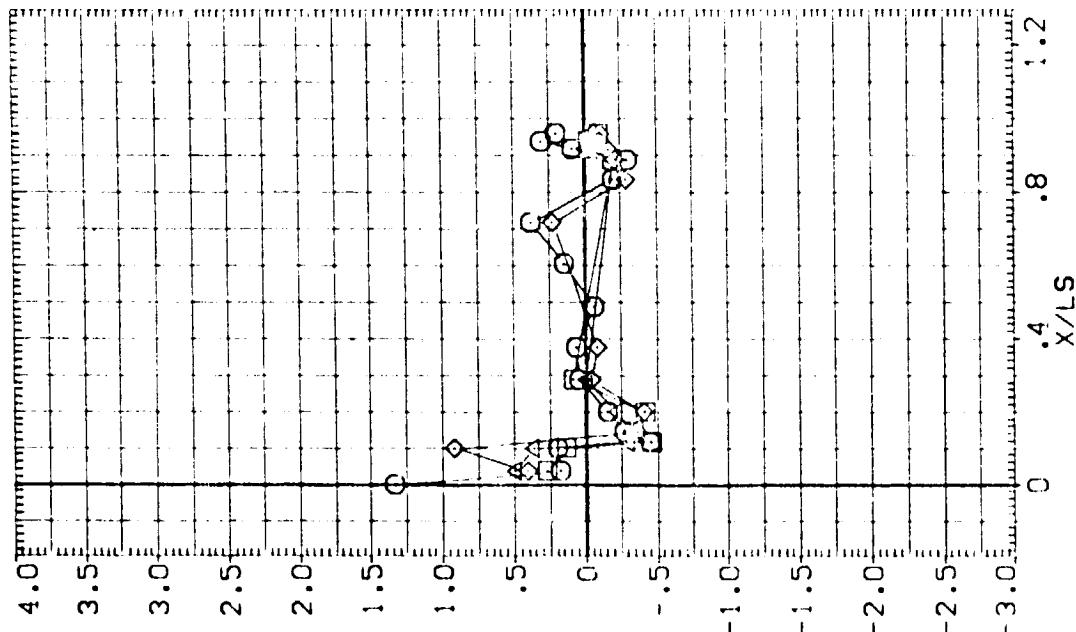


LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 SRM BOOSTER (RB1S33)

PARAMETRIC VALUES  
MACH 1.250 ELEVON .000  
RUDDER .000 SPOILER .000

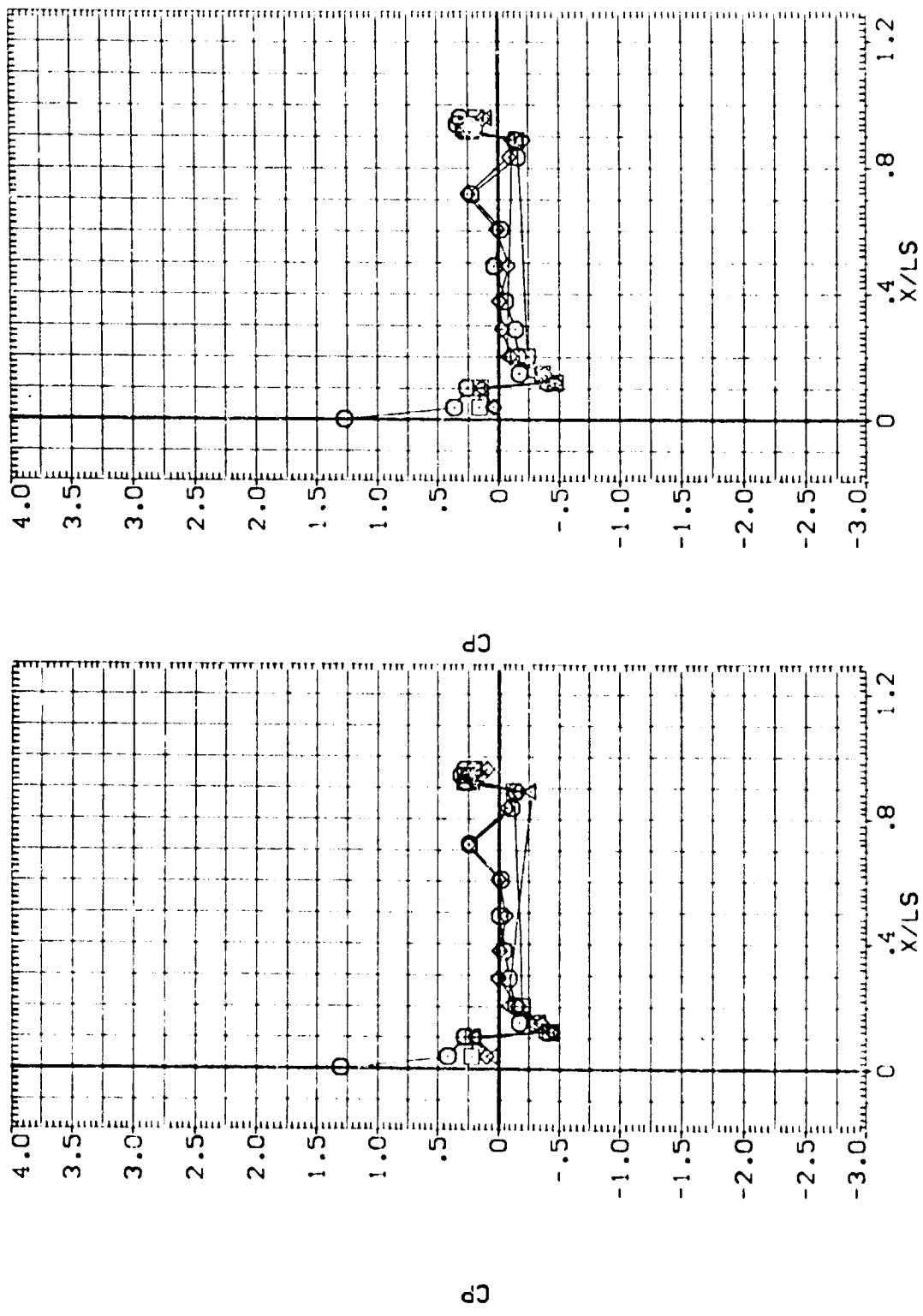
SYMBOL P-HI BETA0 ALPHA0  
○ 180.000 -2.000 4.220  
◇ 225.000 -0.073  
△ 270.000  
315.000



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 SRM BOOSTER (RB1S33)

SYMBOL	PHI	BETA	ALPHA	PARAMETRIC VALUES
○	.000	4.100	4.130	MACH 1.250 ELEVON .000
□	45.000	8.150		RUDER .000 SPDRK .000
◇	90.000			
△	135.000			



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC11-716 1A14 01+712+S12N25+AT10 SRM BOOSTER (RB:S33)

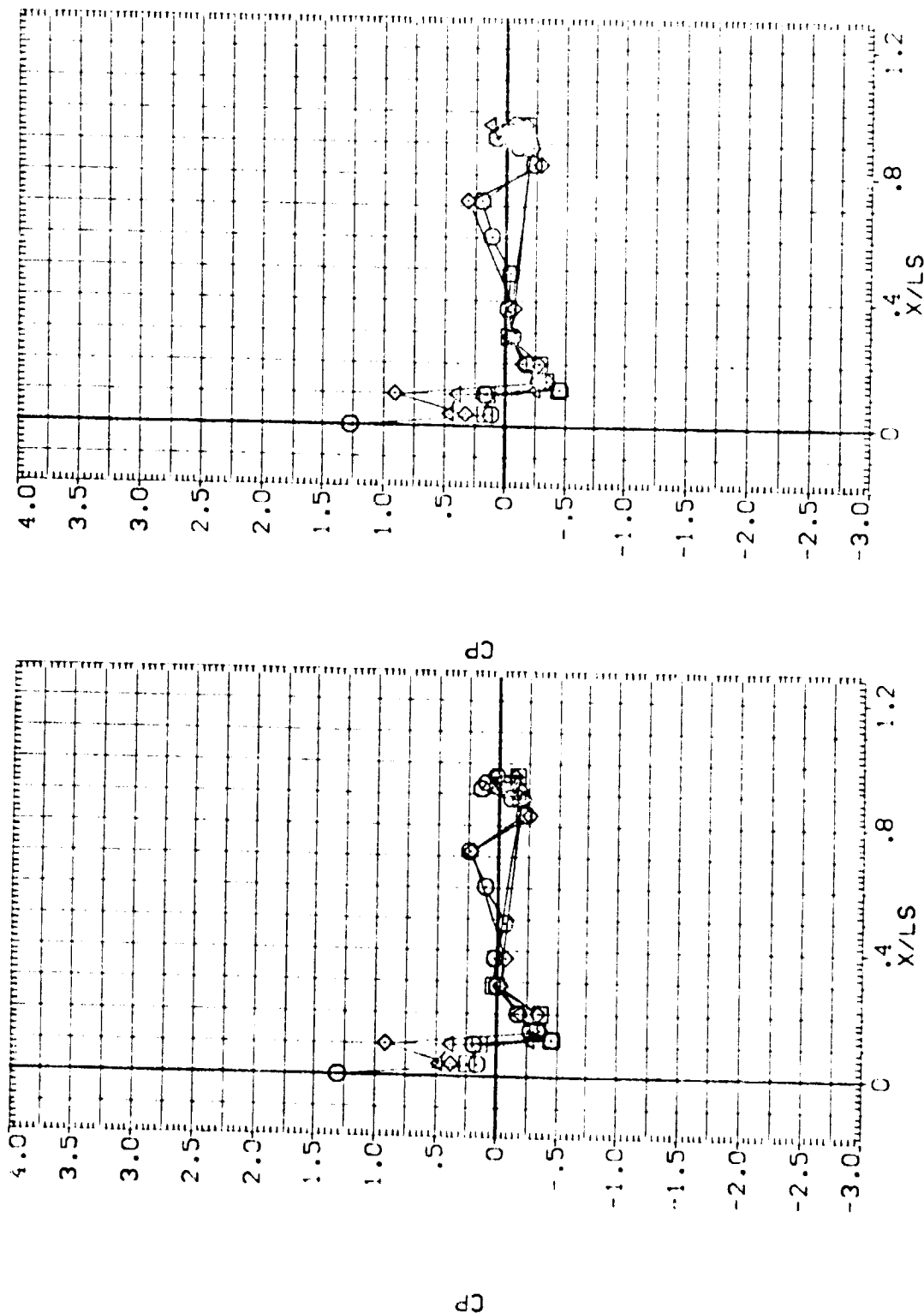
SYMBOL

PHI 180.000  
275.000  
270.000  
315.000

BETA0 4.100  
8.150

ALPHA0 4.430

PARAMETRIC VALUES  
MACH 1.250  
ELEVON .000  
RUDDER .000  
SPDRK .000



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 SRM BOOSTER (RB1S33)

SYMBOL

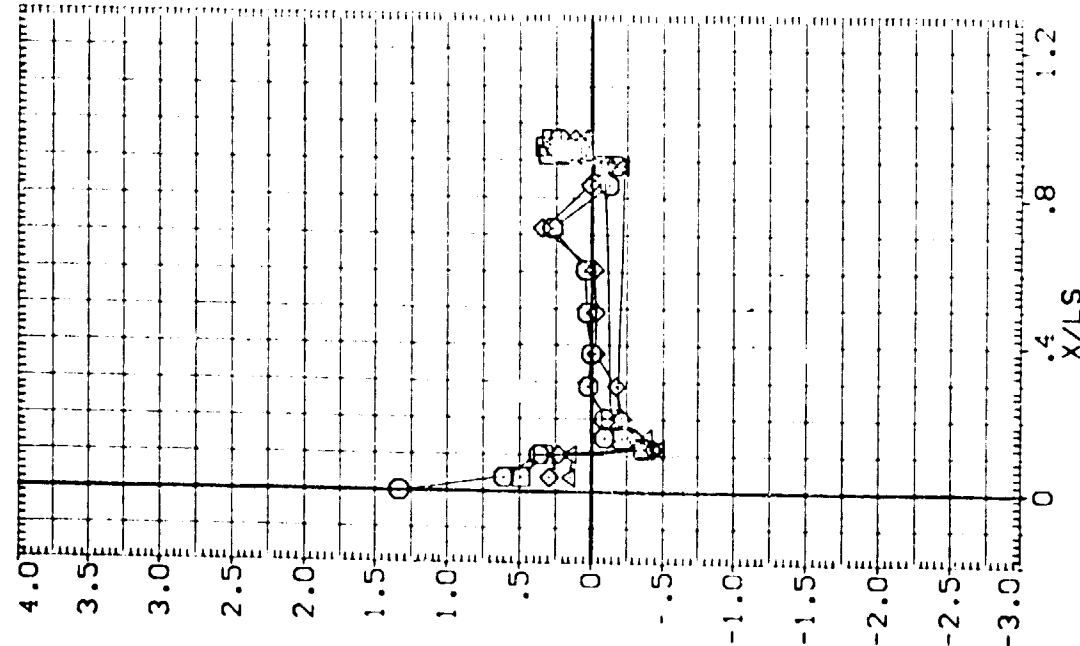
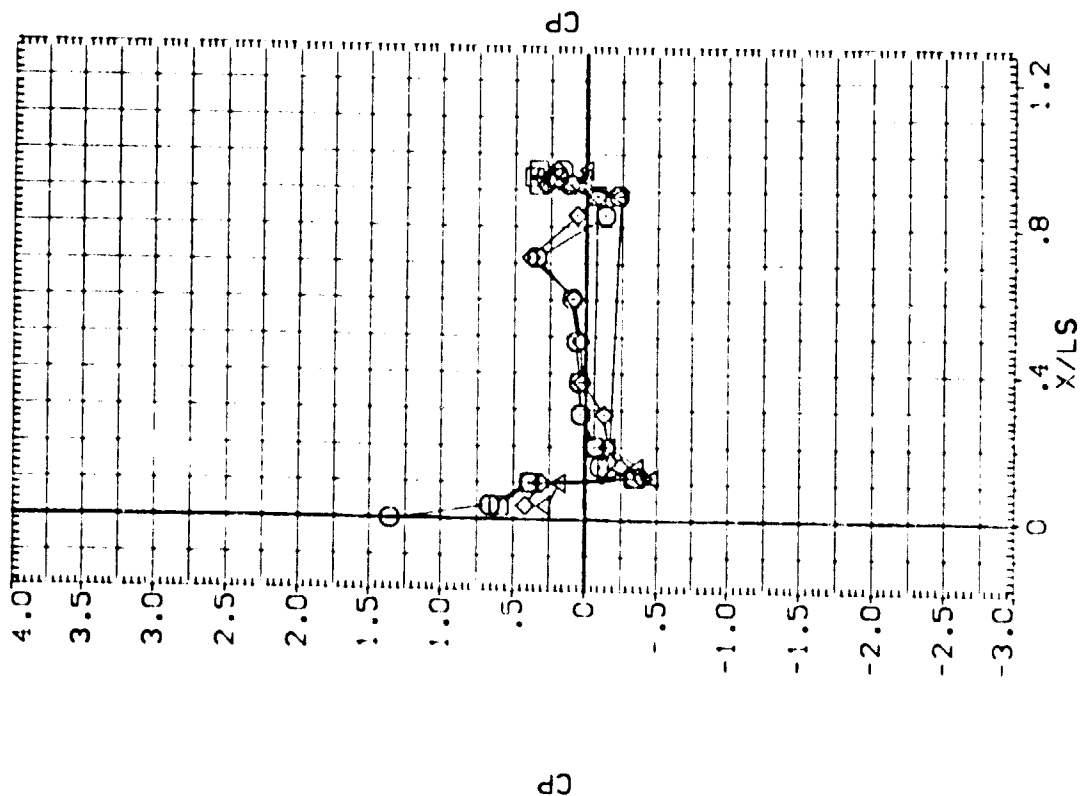
○ □ ◇ △

PHI .000  
45.000  
90.000  
135.000

BETA0 -8.030  
-4.000

ALPHA0 7.930

PARAMETRIC VALUES  
MACH 1.250  
RUDDER .000  
ELEVON .000  
SPOBRK .000



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES



ARC11-716 1A14 01+T12+S12N25+AT10 SRM BOOSTER (RB1S33)

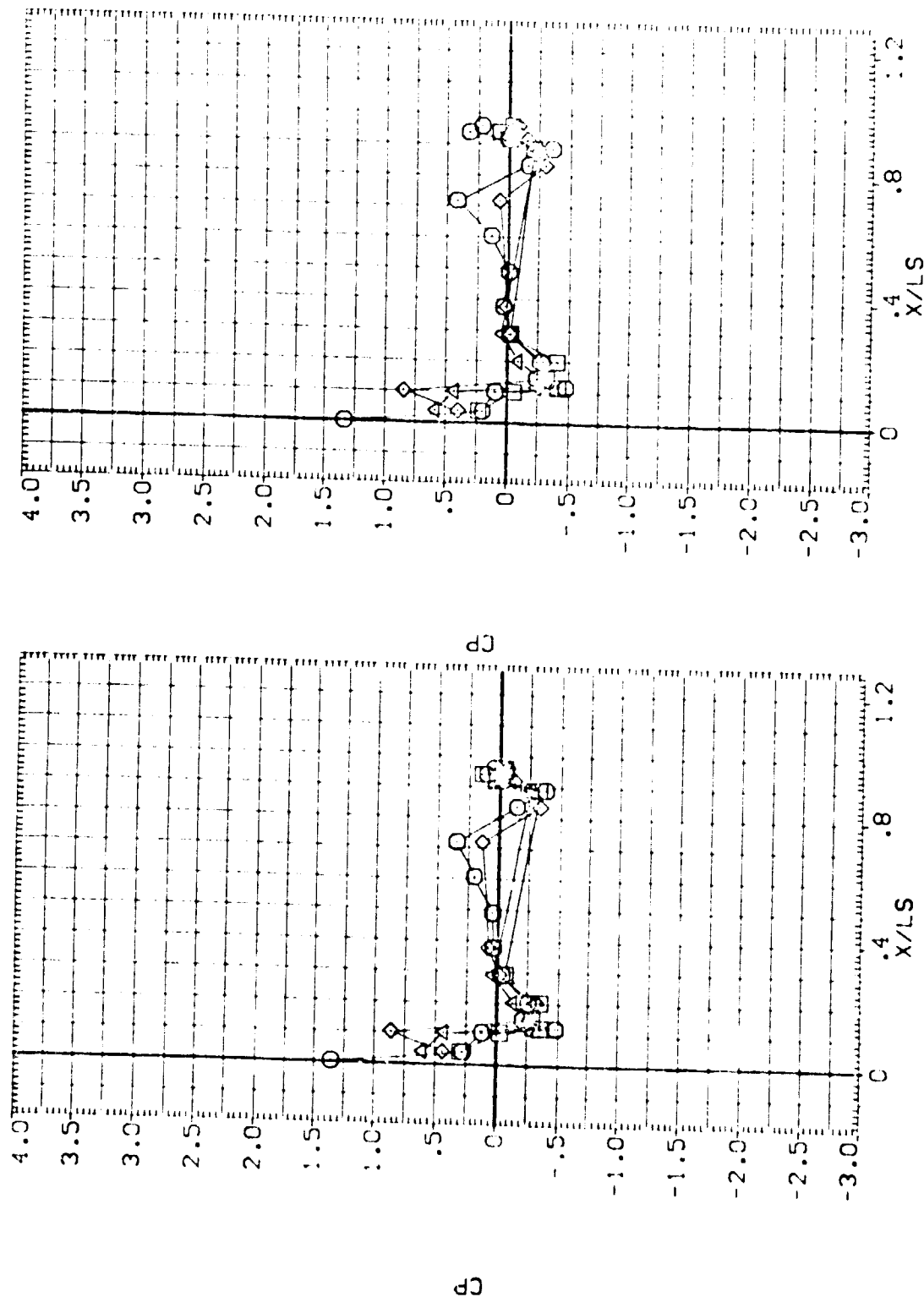
SYMBOL

180.000  
225.000  
270.000  
315.000

BETA0  
-8.030  
-4.000

ALPHA0  
7.930

PARAMETRIC VALUES  
MACH 1.250 ELEV'N .000  
R.O.D.R .000 SPOBRK .000



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

# ARC11-716 1A14 01+T12+S12N25+AT10 SRM BOOSTER (RB1S33)

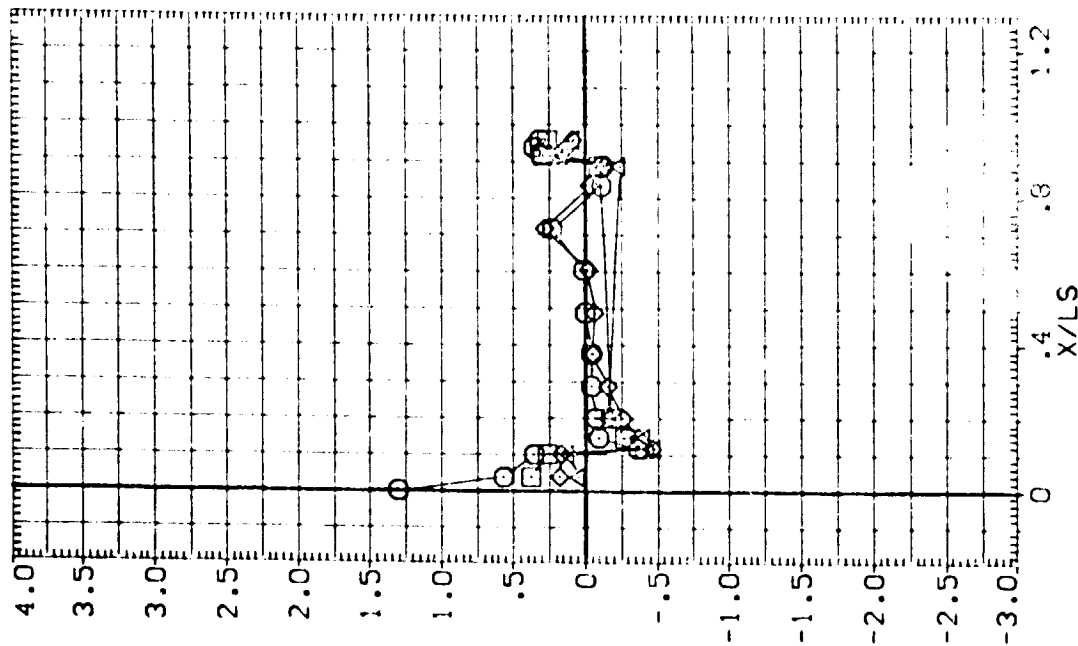
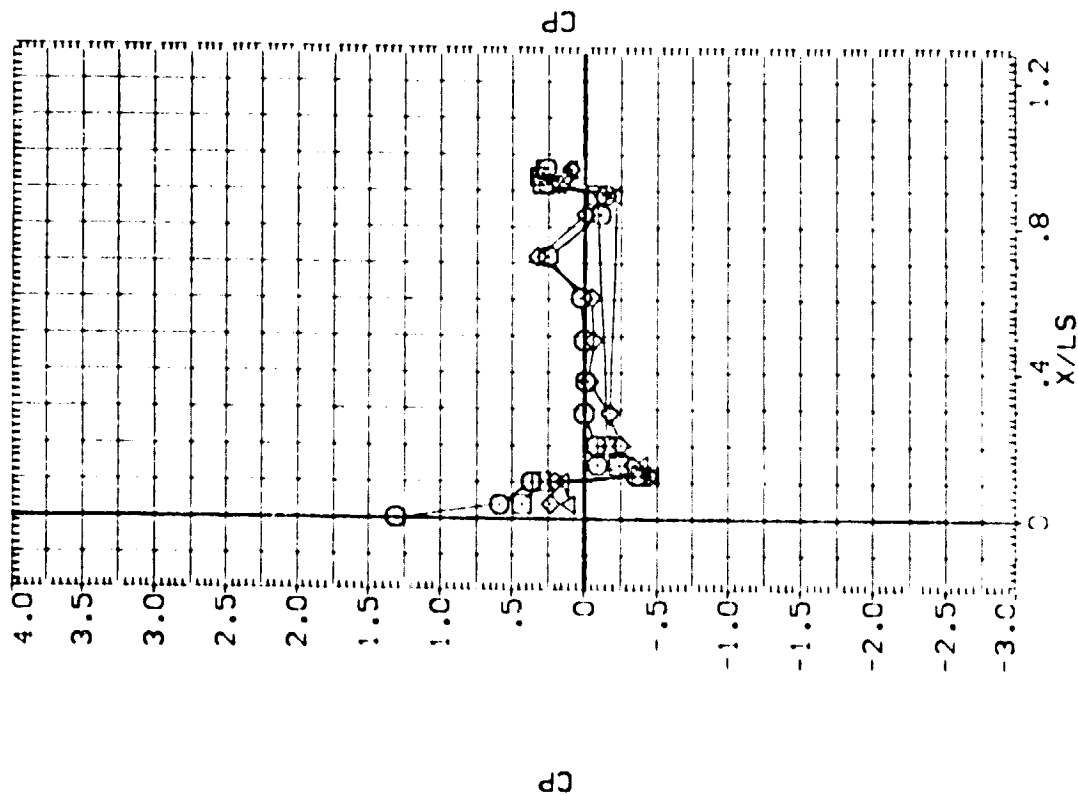
SYMBOL  
 O  
 X  
 Δ

PHI .000  
 45.000  
 90.000  
 135.000

BETA0 -2.030  
 .040

ALPHA0 7.830

PARAMETRIC VALUES  
 MACH 1.250  
 ELEVON .000  
 RUDDER .000  
 SPDRK .000



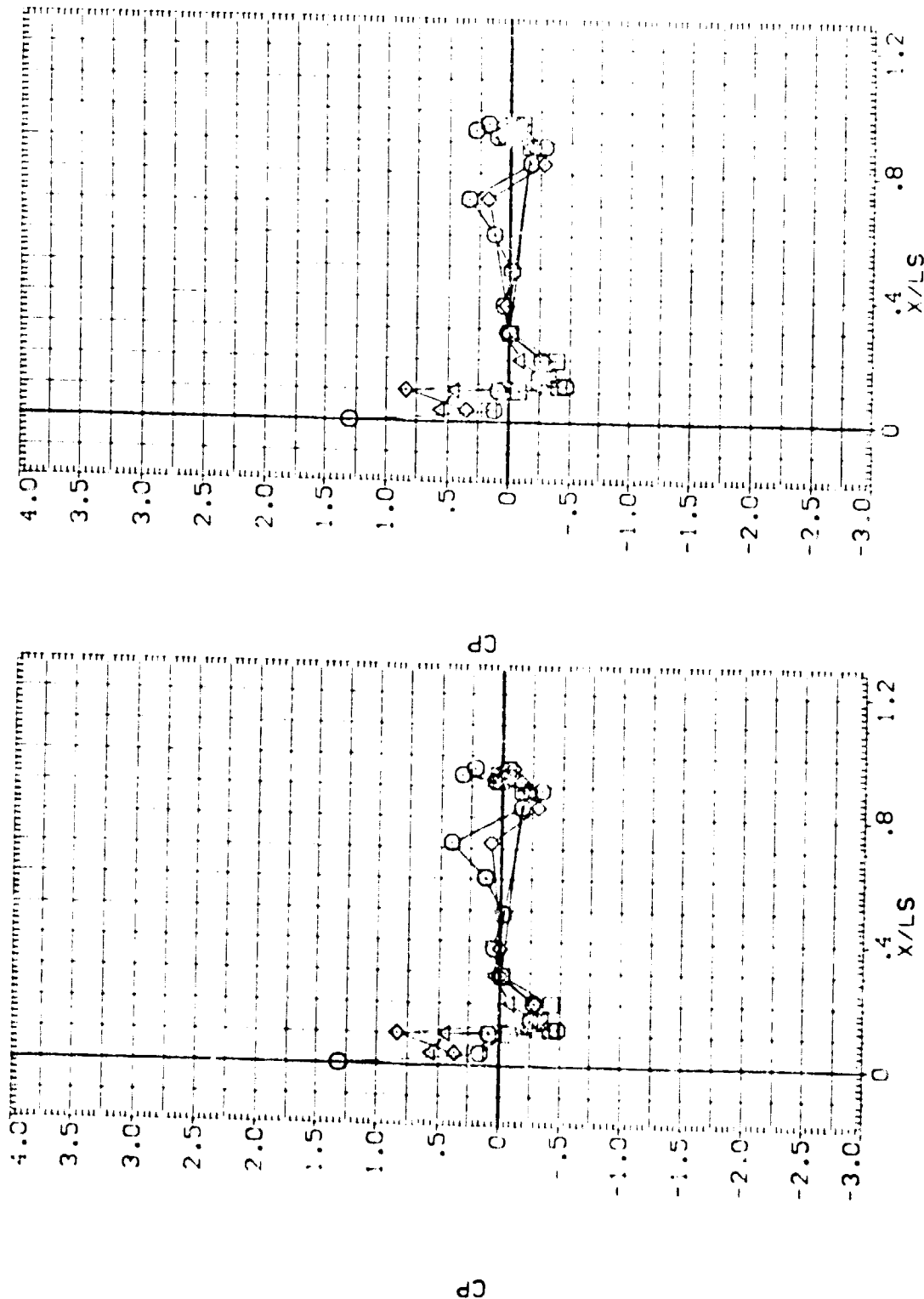
LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC11-716 1A14 01+112 312N25+AT10 SRM BOOSTER (RB1S33)

SYMBOL  
 O 180.000  
 □ 225.000  
 ◇ 270.000  
 △ 315.000

BETA0 ALPHA0  
 -2.030 7.830  
 .040

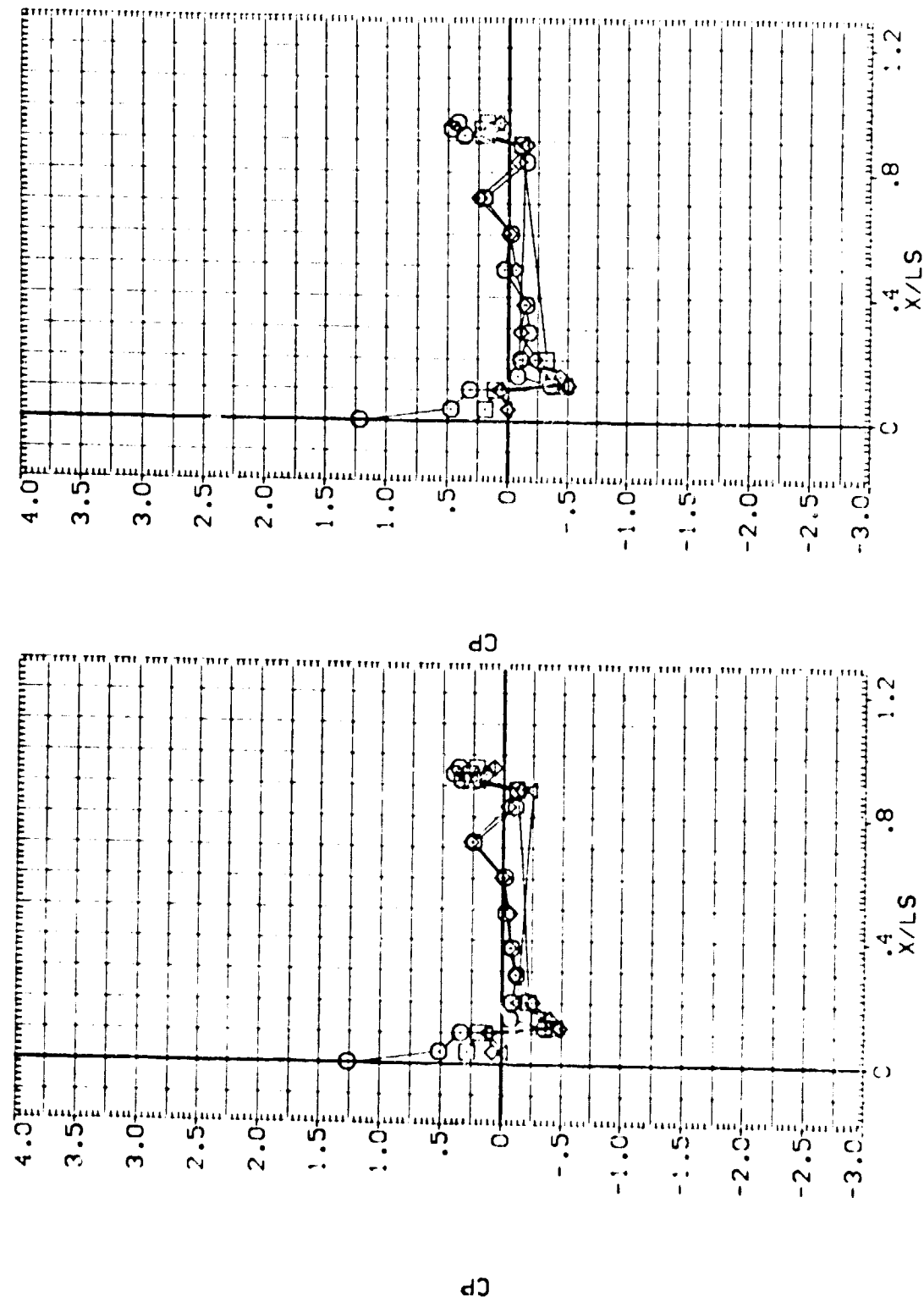
PARAMETRIC VALUES  
 MACH 1.250 ELEVON .000  
 RUDDER .000 SPOILER .000



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 SRM BOOSTER (RB1S33)

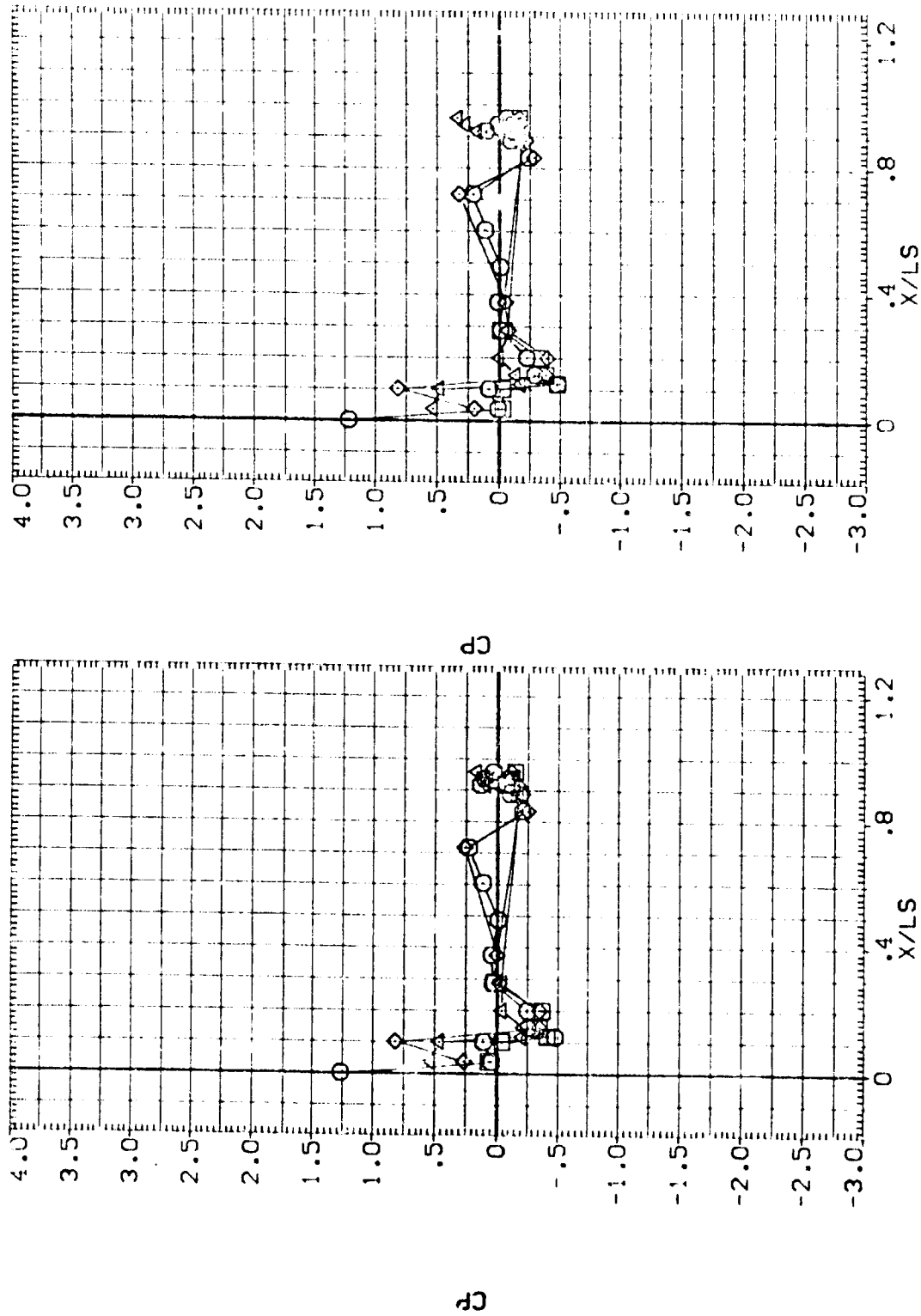
SYMBOL	PHI	BETA	ALPHA	PARAMETRIC VALUES		
				MACH	ELEVON	SPOILER
○	.000	4.060	7.870	1.250	.000	.000
◇	45.000	8.110		.000		
△	90.000					
	135.000					



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

PARAMETRIC VALUES  
 MACH 1.250 ELEVON .000  
 RUDDER .000 SPOBRK .000

SYMBOL PHI BETAJ ALPHAQ  
 180.000 4.060 7.870  
 225.000 8.110  
 270.000  
 315.000



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 SRM BOOSTER (RB1S34)

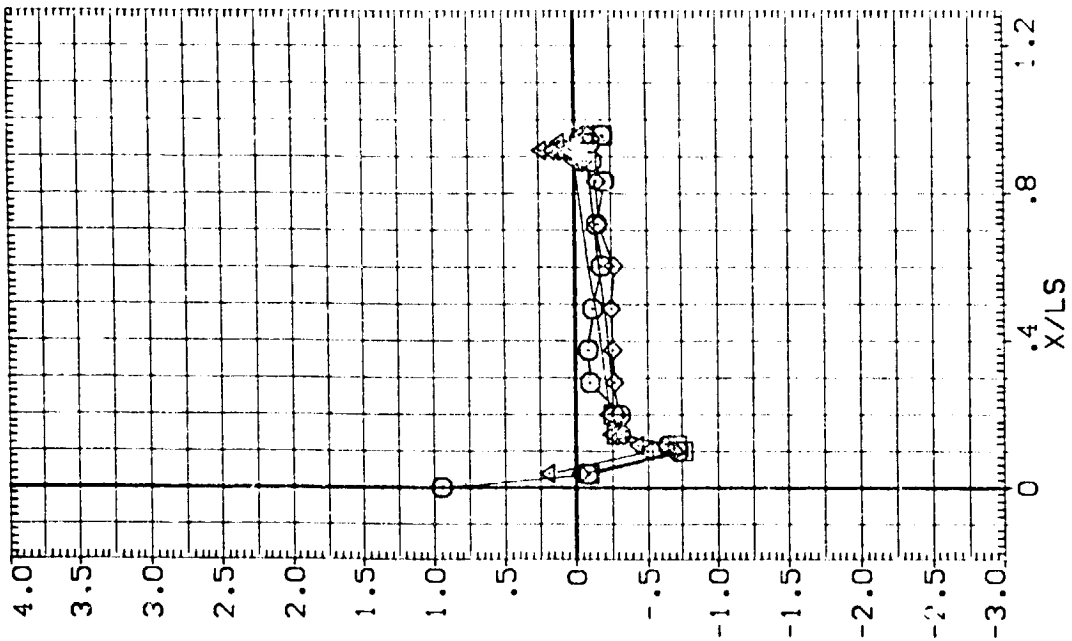
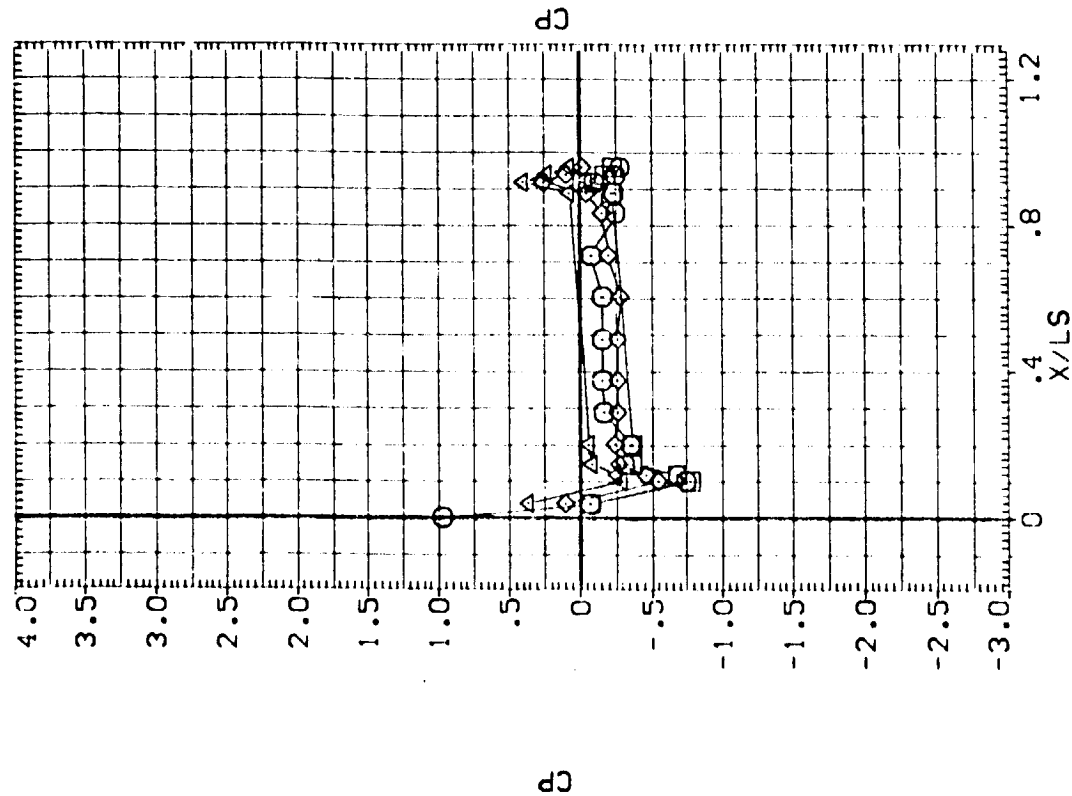
SYMBOL  
 ○ □ ◇ △

P41  
 .000  
 45.000  
 90.000  
 135.000

BETAT  
 -8.070  
 .010

ALPHAT  
 -8.360

PARAMETRIC VALUES  
 MACH .600  
 RUDDER .000  
 ELEVON .000  
 SPOBRK .000



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 SRM BOOSTER (RB1S34)

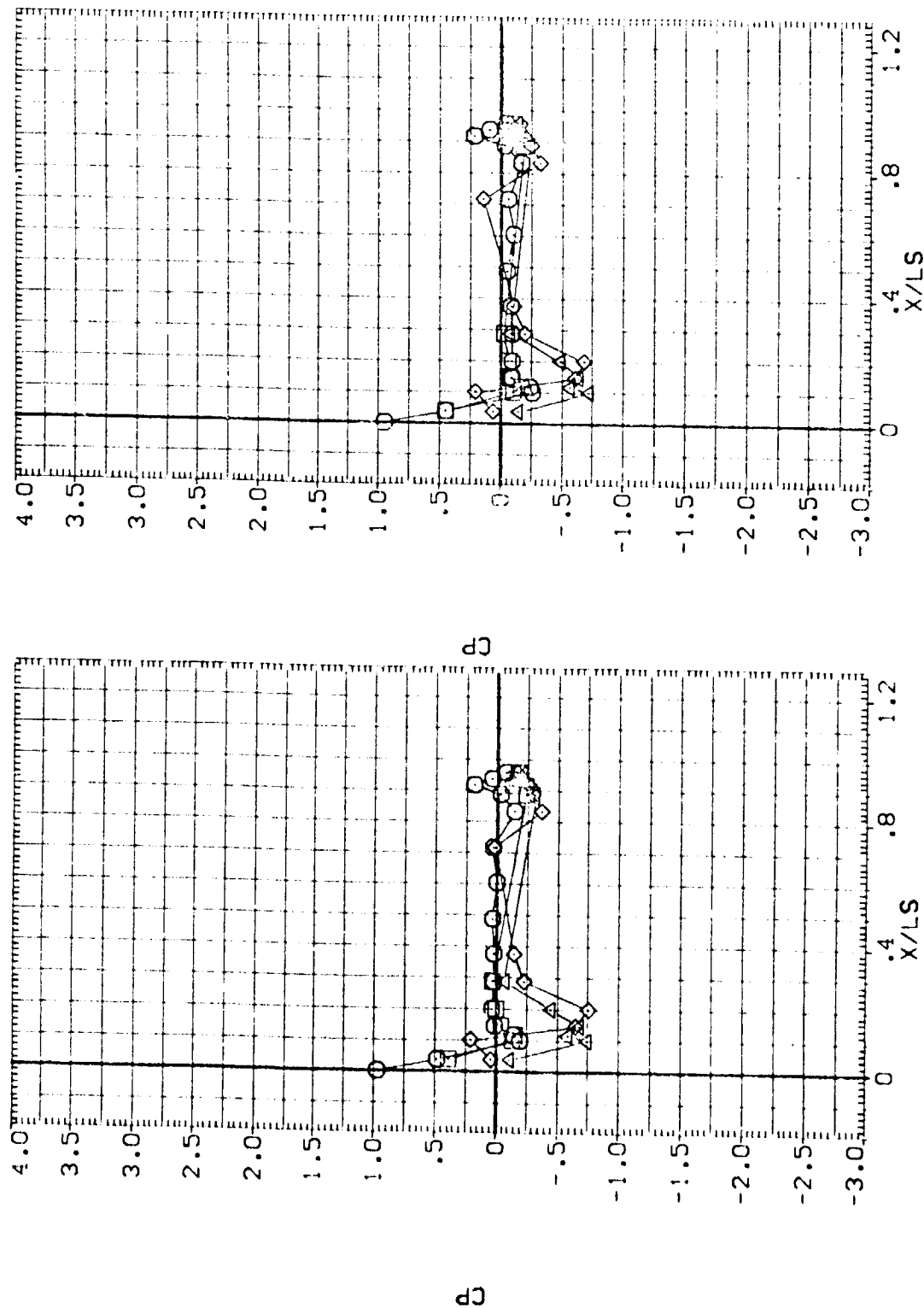
SYMBOL  
 ○  
 □  
 ◇  
 △

PHI  
 180.000  
 225.000  
 270.000  
 315.000

BETAT  
 -8.070  
 .010

ALPHAT  
 -8.360

PARAMETRIC VALUES  
 MACH .600  
 RUDDER .000  
 ELEVON .000  
 SPOBRK .000



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 SRM BOOSTER (RB1S34)

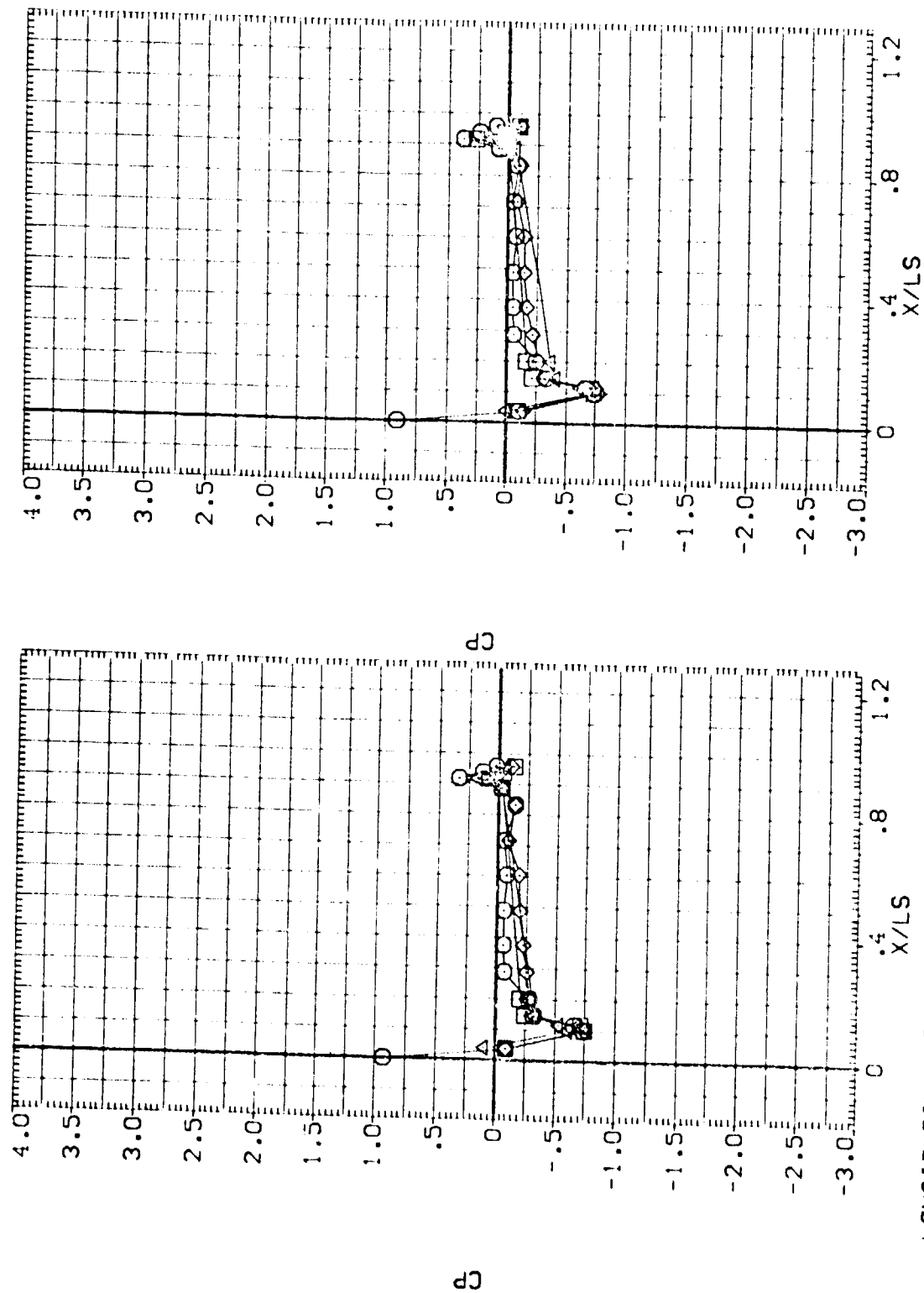
SYMBOL  
 ○  
 □  
 ◇  
 △

PHI .000  
 45.000  
 90.000  
 135.000

BETAT 4.080  
 6.150

ALPHAT -8.320

PARAMETRIC VALUES  
 MACH .500  
 RUDDER .000  
 ELEVON .000  
 SPOBRK .000

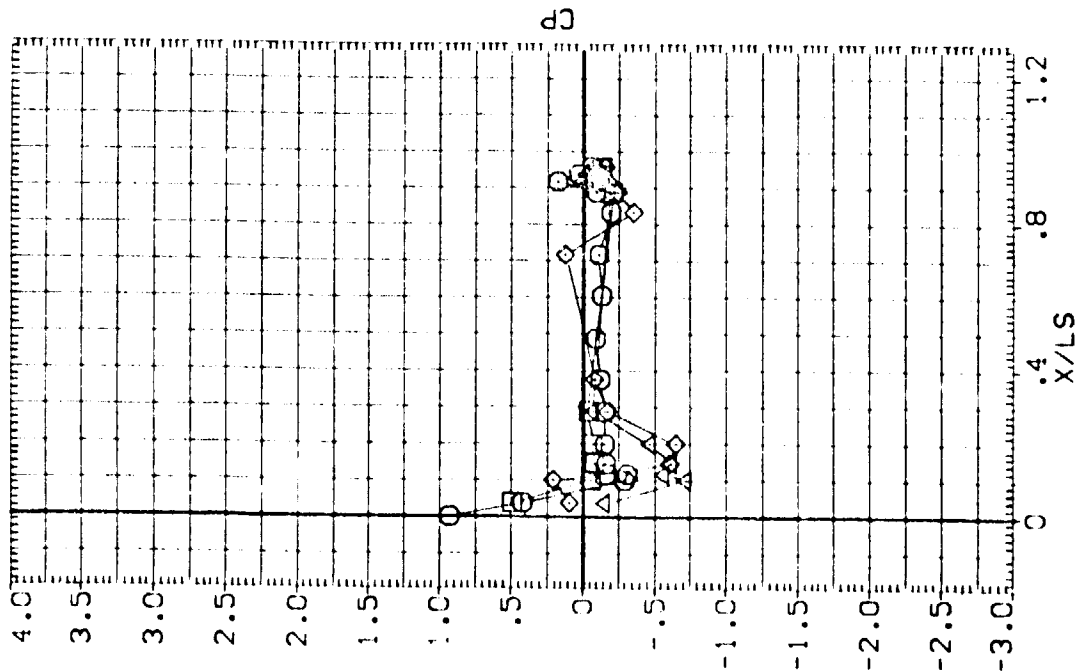
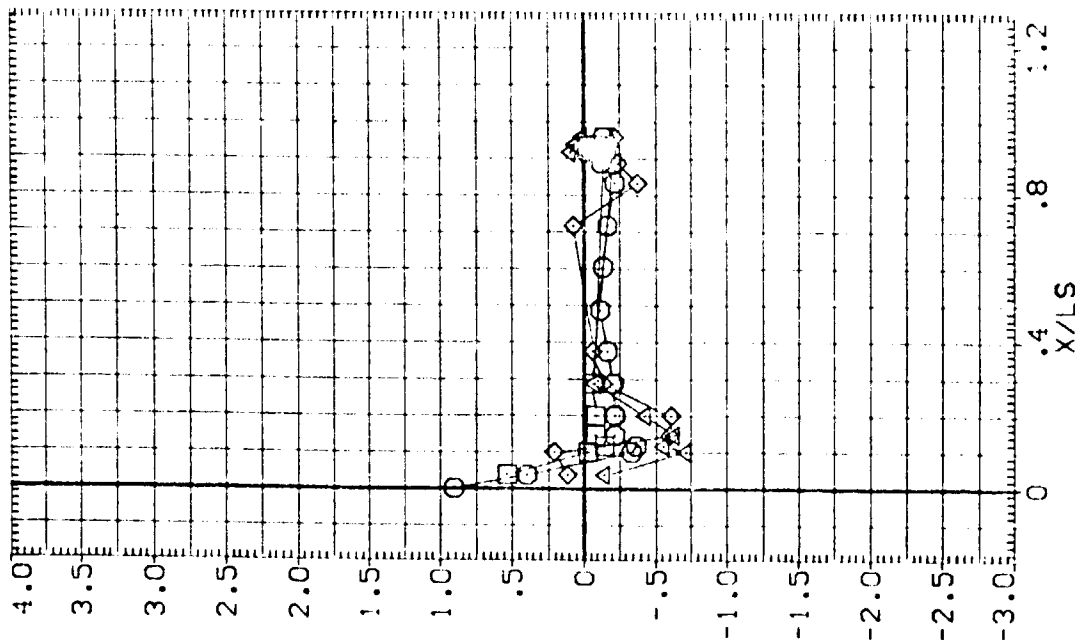


LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES



PARAMETRIC VALUE  
 MACH .600 ELEVON .000  
 RUDDER .000 SPOBRK .000

SYMBOL P-11 BETAT ALPHAT  
 180.000 4.080 -8.320  
 225.000 8.150  
 270.000  
 315.000



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 SRM BOOSTER (RB1S34)

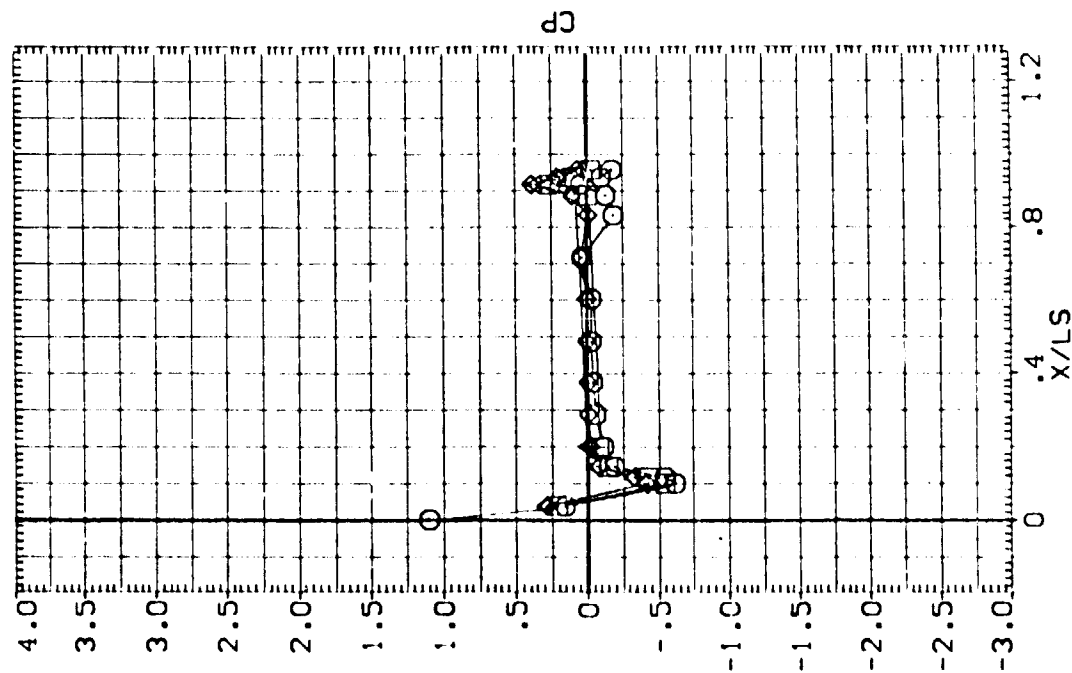
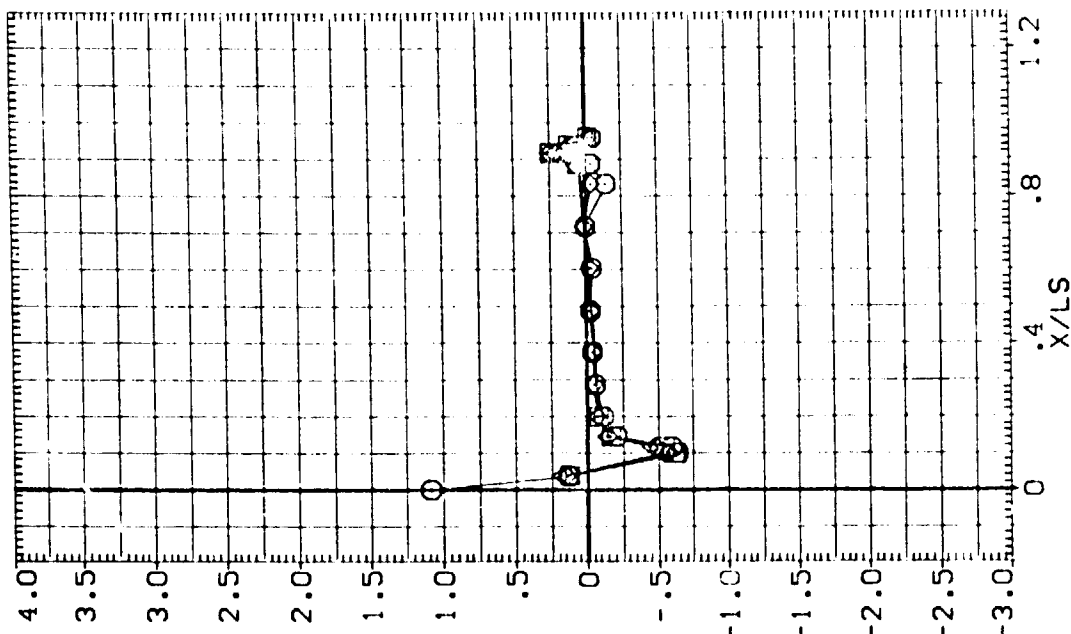
SYMBOL  
 ○ □ ◇ △

PHI .000  
 45.000  
 90.000  
 135.000

BETAT -8.150  
 .000

ALPHAT -.490

PARAMETRIC VALUES  
 MACH .600  
 RUDDER .000  
 ELEVON .000  
 SPODBRK .000



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 SRM BOOSTER (RB1S34)

SYMBOL

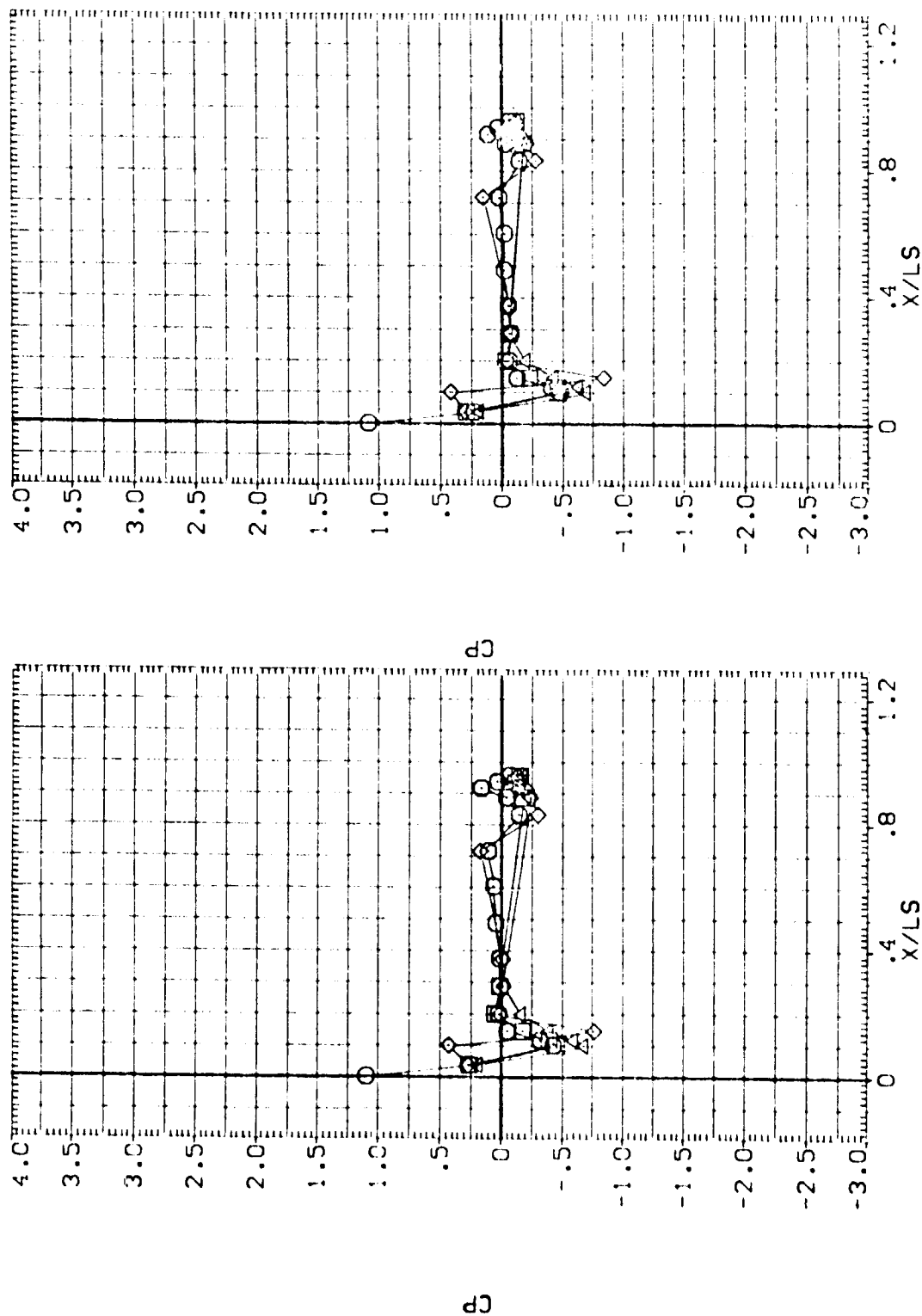
PHI  
180.000  
225.000  
270.000  
315.000

BETAT  
-8.150  
.000

ALPHAT  
-.490

MACH  
RUDDER

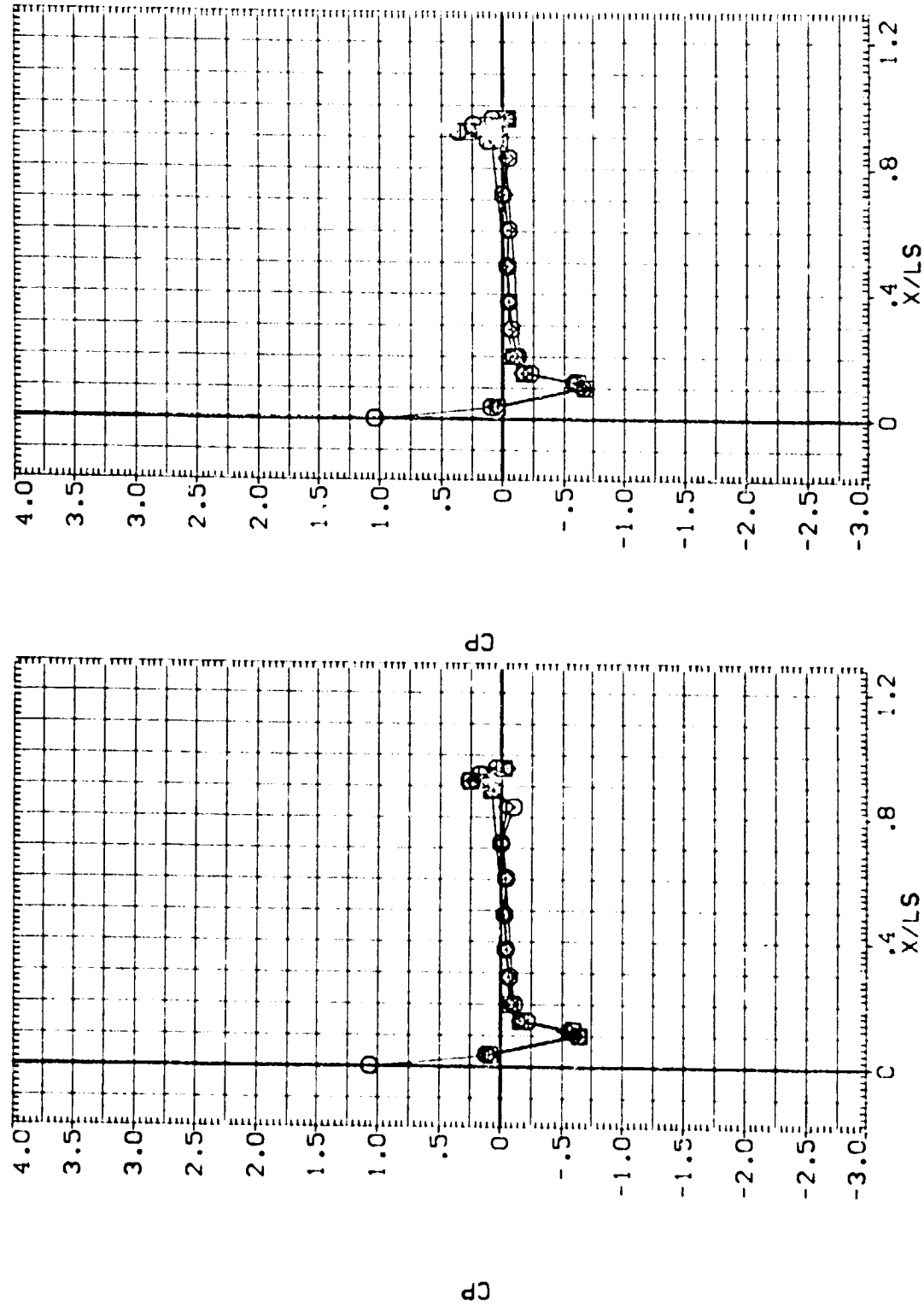
PARAMETRIC VALUES  
.600  
.000  
ELEVON  
SPDRK  
.000  
.000



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 SRM BOOSTER (RB1S34)

SYMBOL	PHI	BETAT	ALPHAT	PARAMETRIC VALUES		
				MACH	.600	ELEVON
○	.000	4.090	-.470	RUDER	.000	SPOBRK
◇	45.000	8.150				
△	90.000					
	135.000					



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC11-716 1A14 01+112+S12N25+AT11 SRM BOOSTER (RB1S34)

SYMBOL

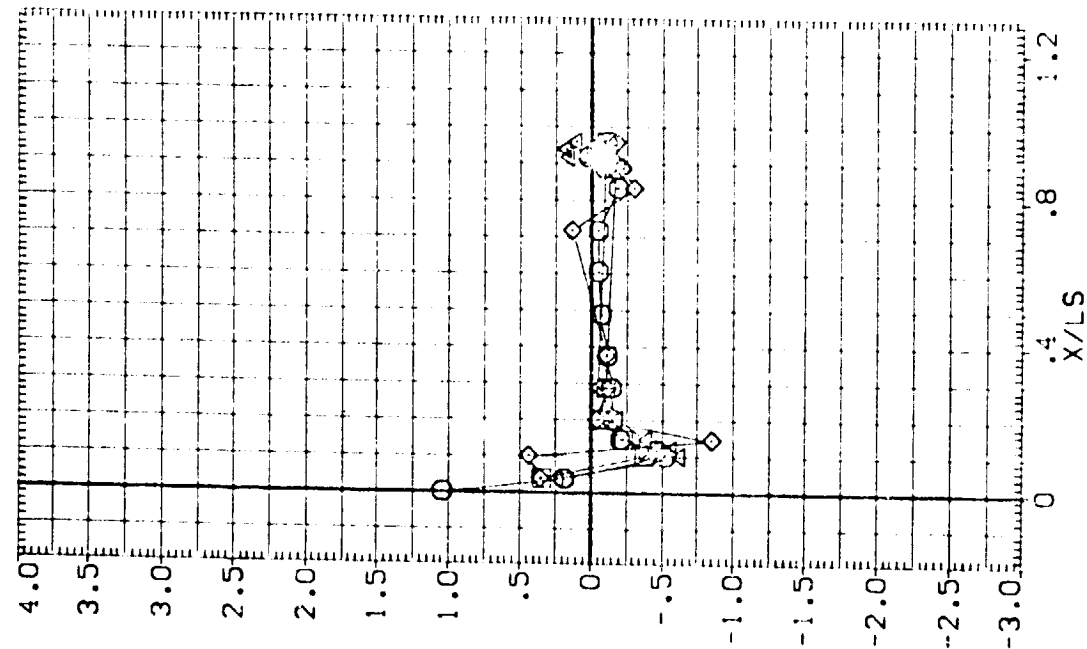
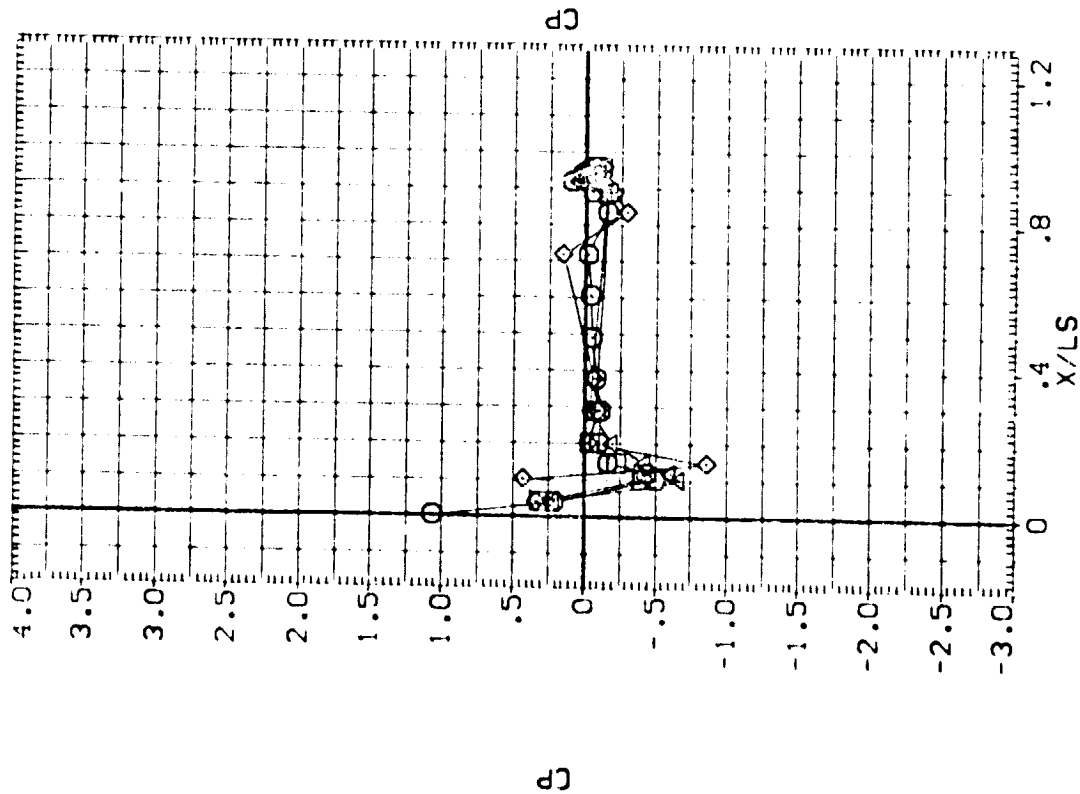
PHI  
180.000  
225.000  
270.000  
315.000

BETAT  
4.090  
8.150

ALPHAT  
-.470

PARAMETRIC VALUES

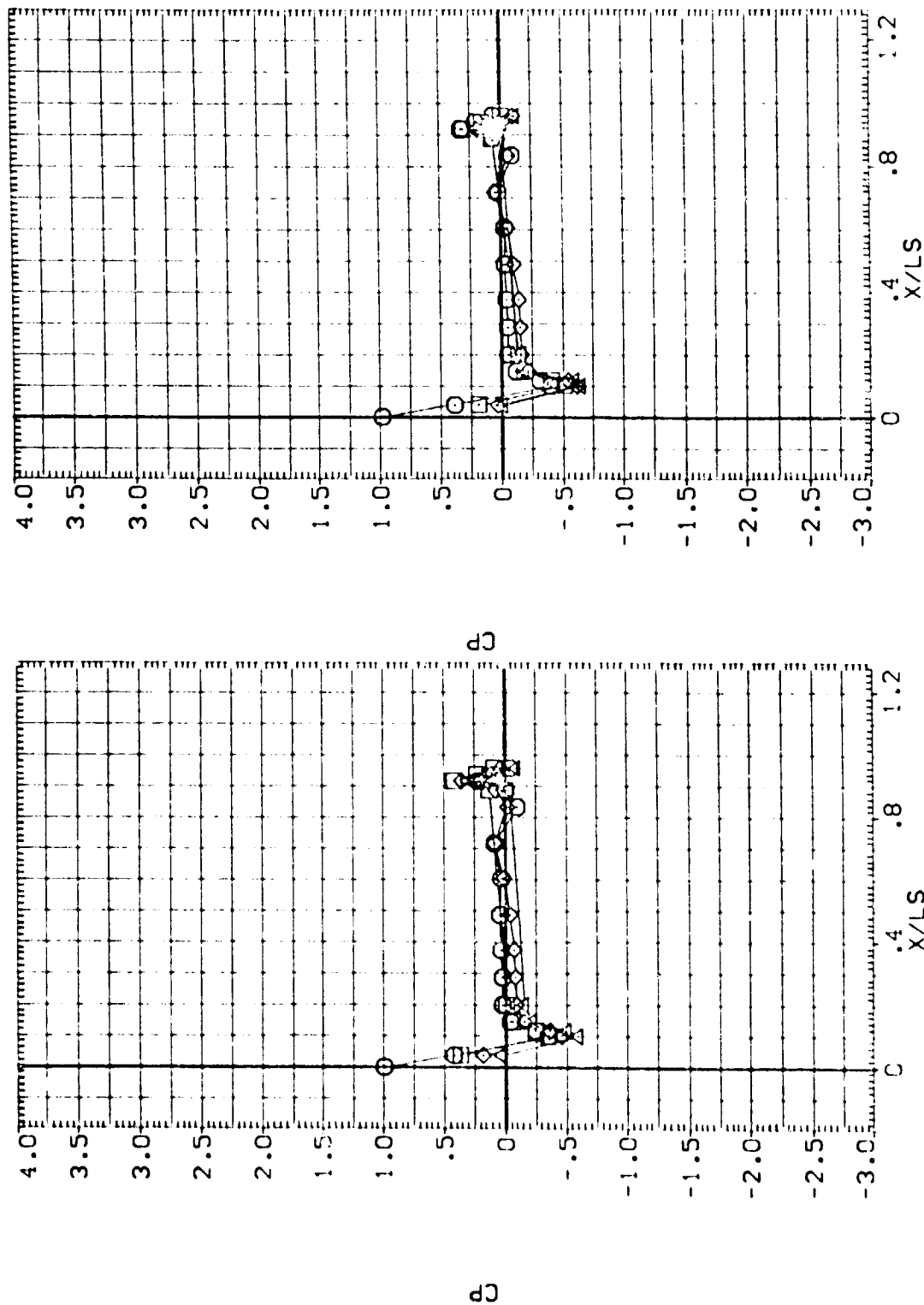
MACH .600 ELEVON .000  
RUDDER .000 SPEEDBRK .000



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC11-716 1A14 01+112+S12N25+AT11 SRM BOOSTER (RB1S34)

SYMBOL	PHI	BETAT	ALPHAT	PARAMETRIC VALUES		
○	.000	-8.150	7.940	MACH	.600	ELEVON
◇	45.000	.010		RUDDER	.000	SPOBRK
△	90.000					
	135.000					



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 SRM BOOSTER (RB1S34)

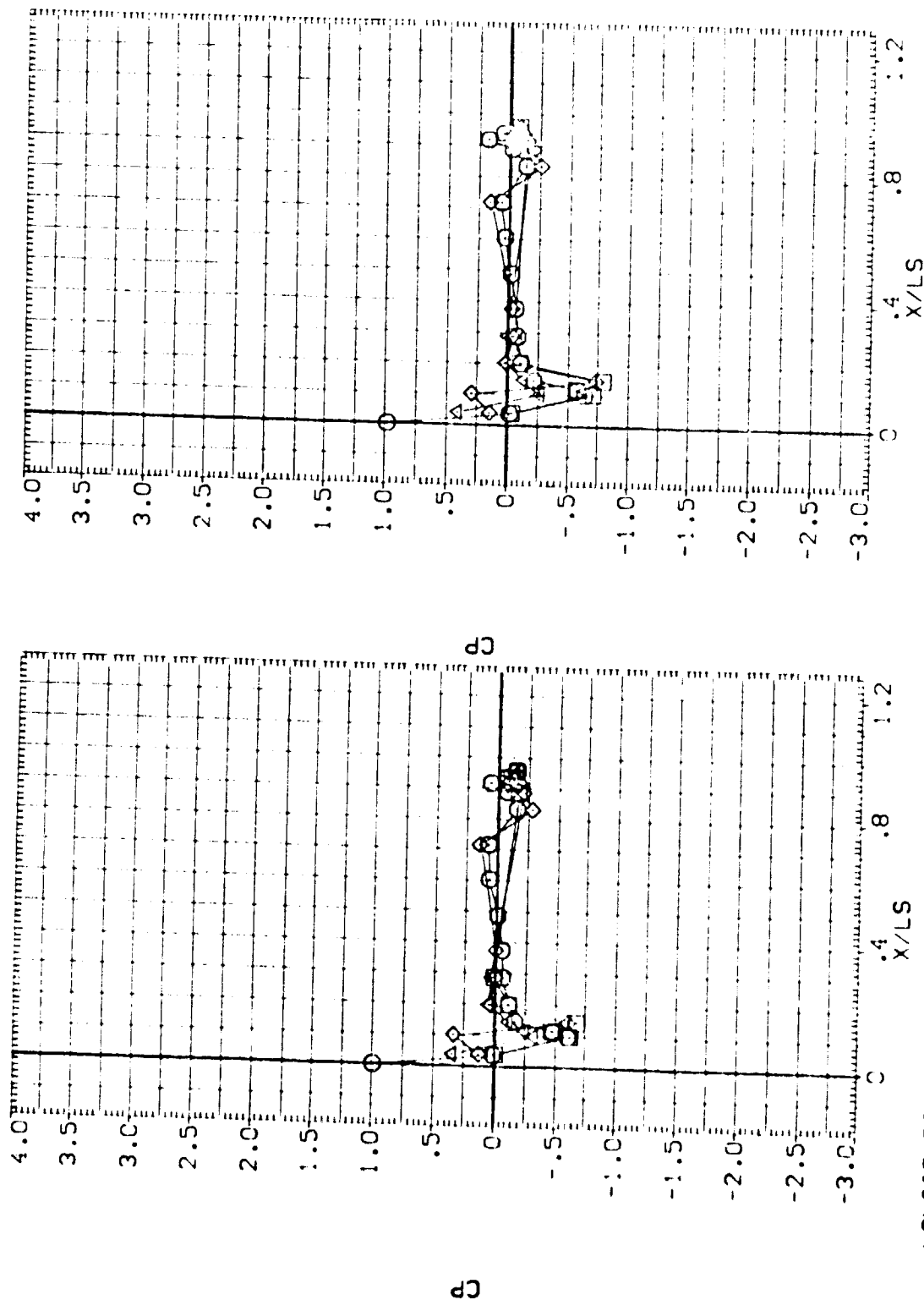
SYMBOL

PHI 180.000  
 225.000  
 270.000  
 315.000

BETAT -8.150  
 .010

ALPHAT 7.940

PARAMETRIC VALUES  
 MACH .600  
 RUDDER .000  
 ELEVON .000  
 SPOBRK .000



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC:-7:16 1A14 01+T12+S12N25+AT11 SRM BOOSTER (RB1S34)

SYMBOL

○  
□  
◇  
△

BETAT

ALPHAT

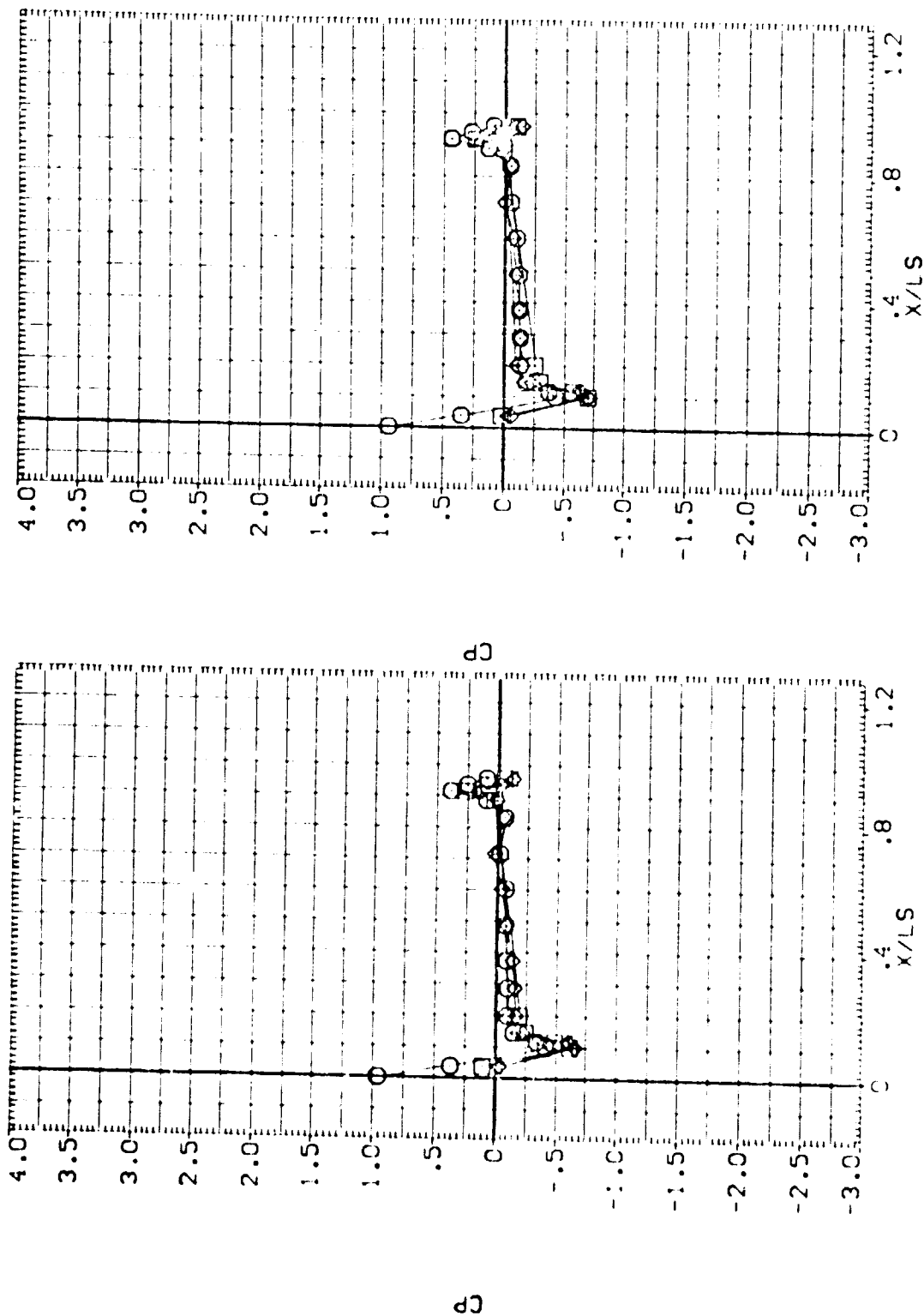
4.120  
8.240

PHI

.000  
45.000  
90.000  
135.000

PARAMETRIC VALUES

MACH .600 ELEVON .000  
RUDDER .000 SPEEDX .000



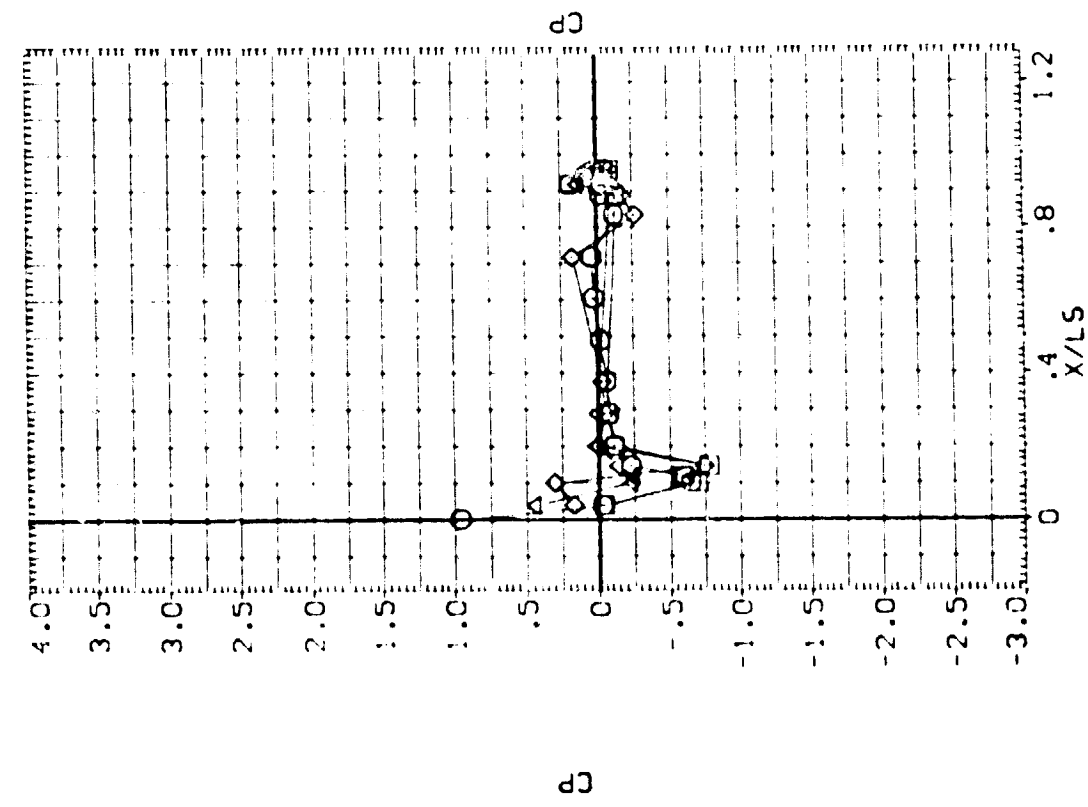
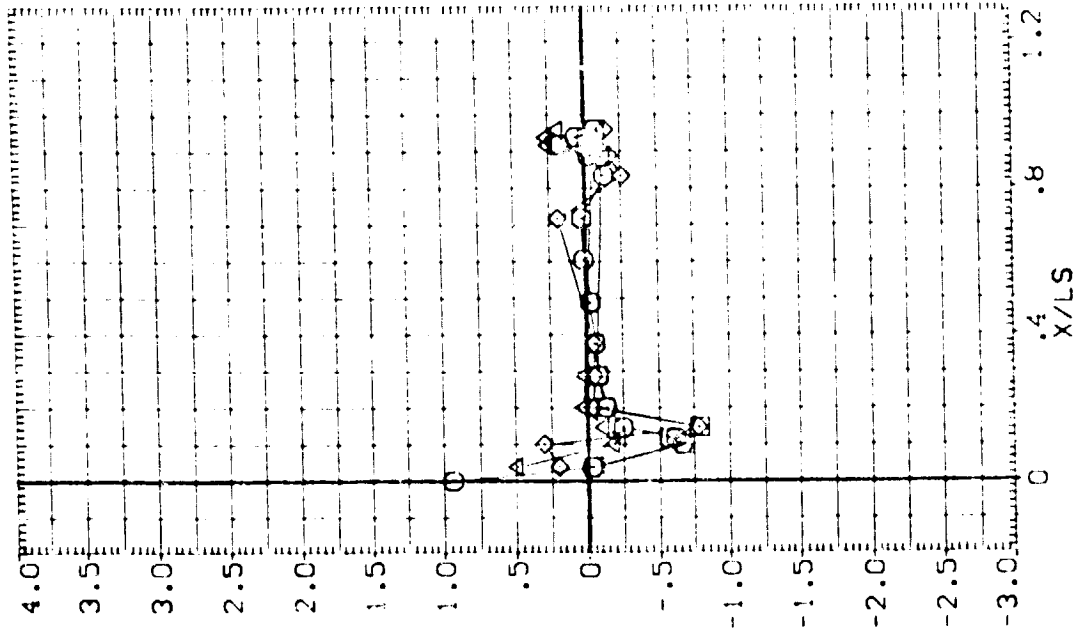
LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES



ARC11-716 1A14 01+12+S12N25+AT11 SRM BOOSTER (RB1334)

PARAMETRIC VALUES  
 .GOC .000 ELEVON .000  
 .ROD .000 SPDBRK .000

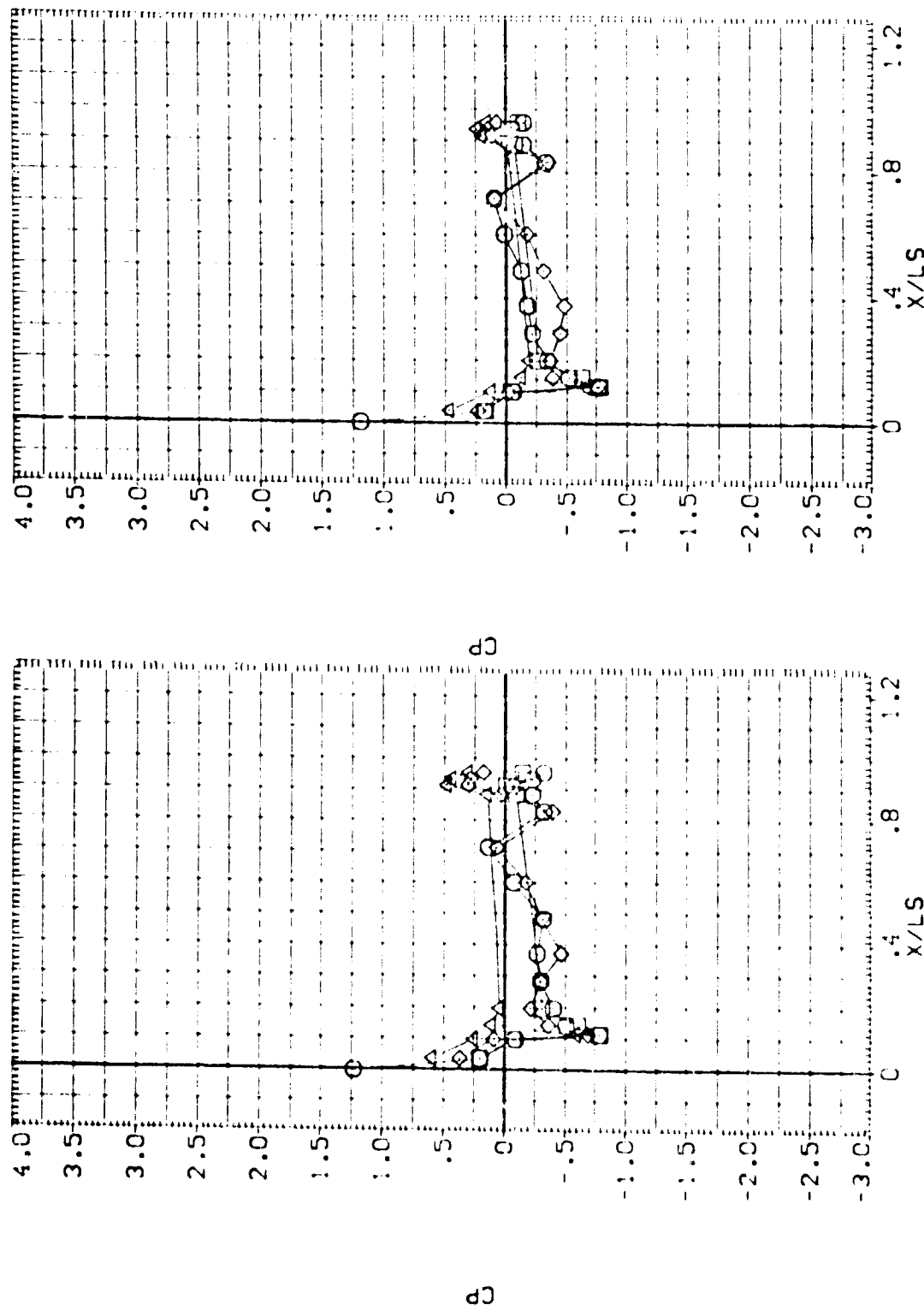
SYMBOL P-1 BETAT ALPHAT  
 ○ 180.000 4.120 7.970  
 ◇ 225.000 8.240  
 △ 270.000 315.000



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC:-716 1A14 01+T12+S12N25+AT11 SRM BOOSTER (RB1S38)

SYMBOL	PHI	BETAT	ALPHAT	MACH	ELEVON	SPDR
○	.000	-8.150	-6.600	.000	.000	.000
◇	45.000					
△	90.000					
	135.000					



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

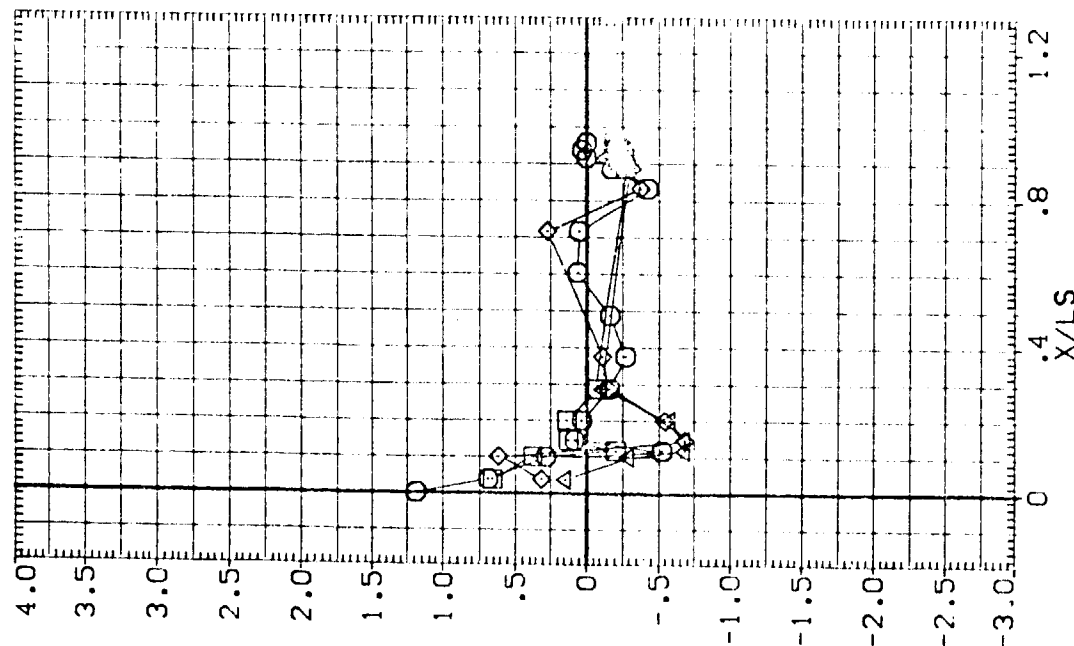
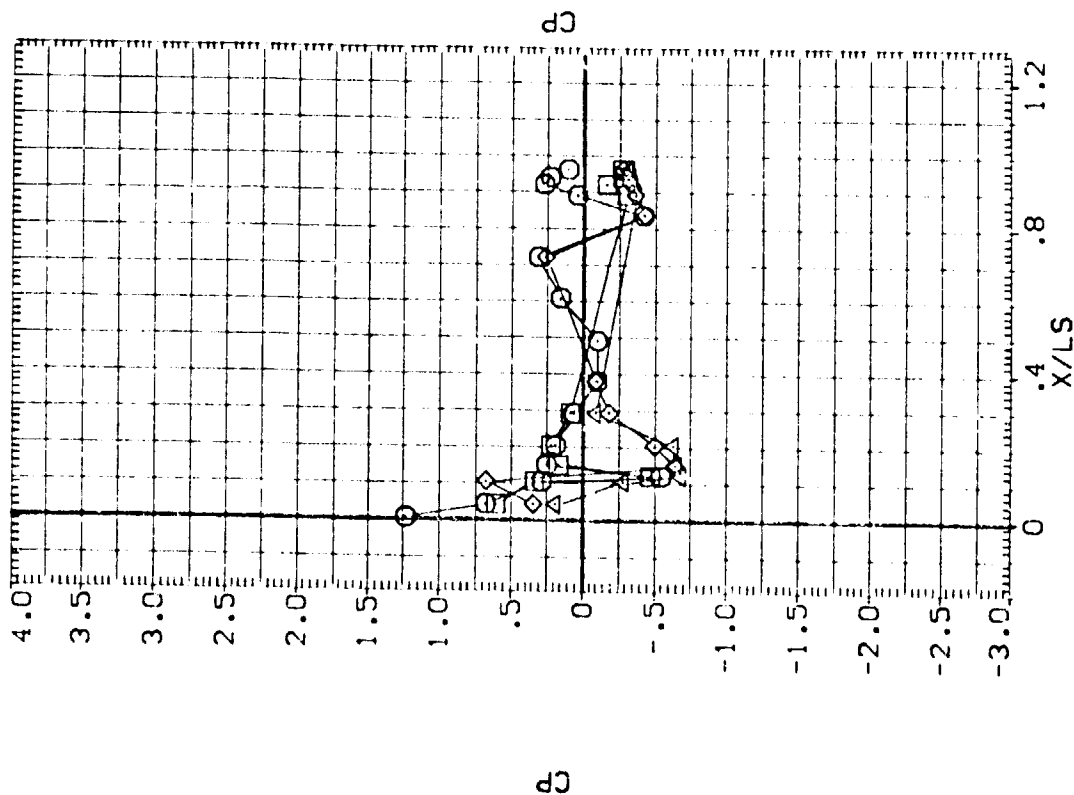
ARC11-716 1A14 01+T12+S12N25+AT11 SRM BOOSTER (RBIS38)

SYMBOL

PHI 180.000  
225.000  
270.000  
315.000

BETAT -8.150  
ALPHAT -8.600  
.000

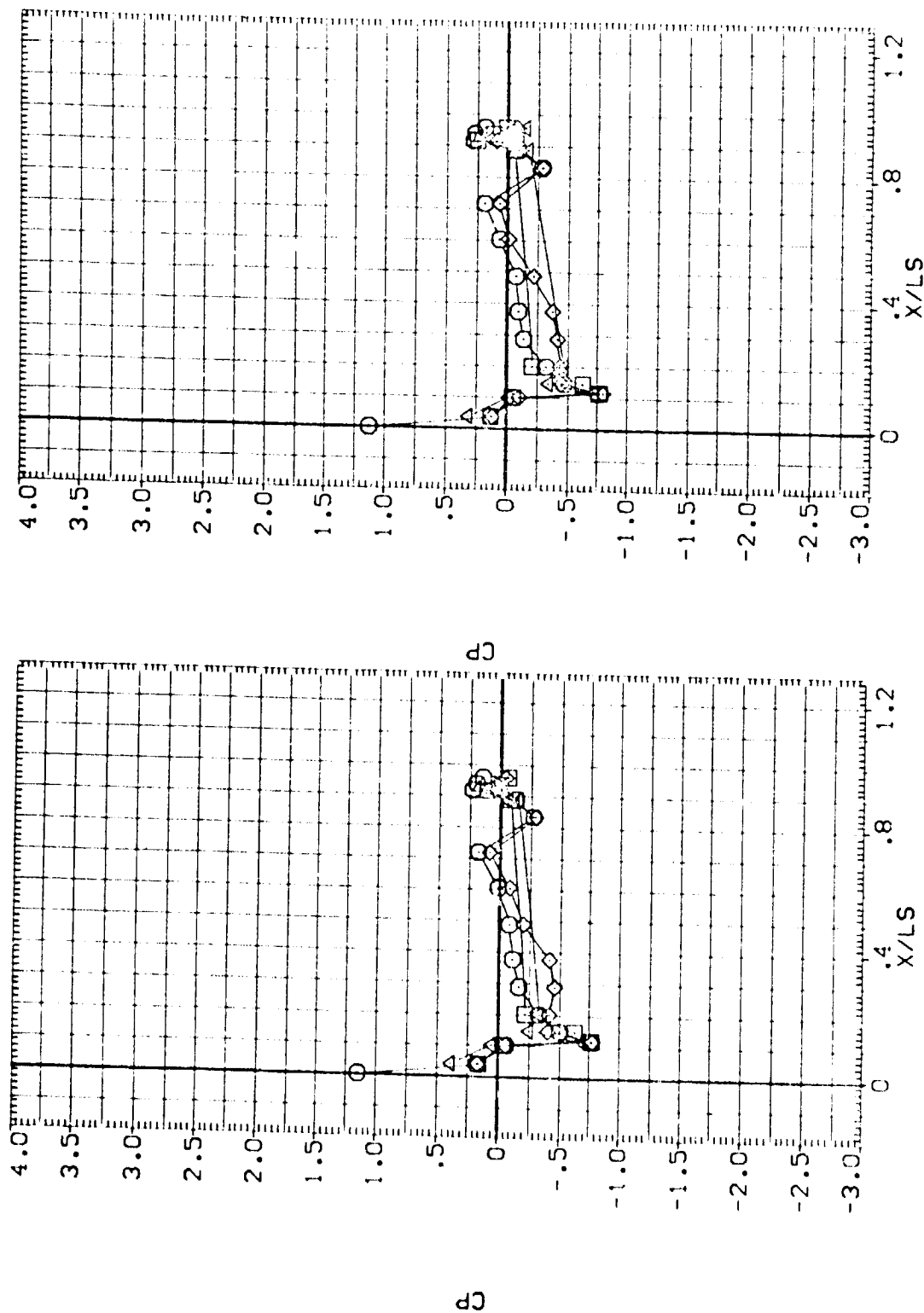
MACH 1.050  
RUDDER .000  
ELEVON .000  
SPDRK .000



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 SRM BOOSTER (RB1S38)

SYMBOL	PHI	BETAT	ALPHAT	PARAMETRIC VALUES		
				MACH	ELEVON	SPDRK
○	.000	4.120	-8.570	1.050	.000	.000
□	45.000	8.200		.000	.000	.000
◇	90.000					
△	135.000					



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC:1-716 1A14 01+T12+S12N25+AT11 SRM BOOSTER (RB1S38)

SYMBOL

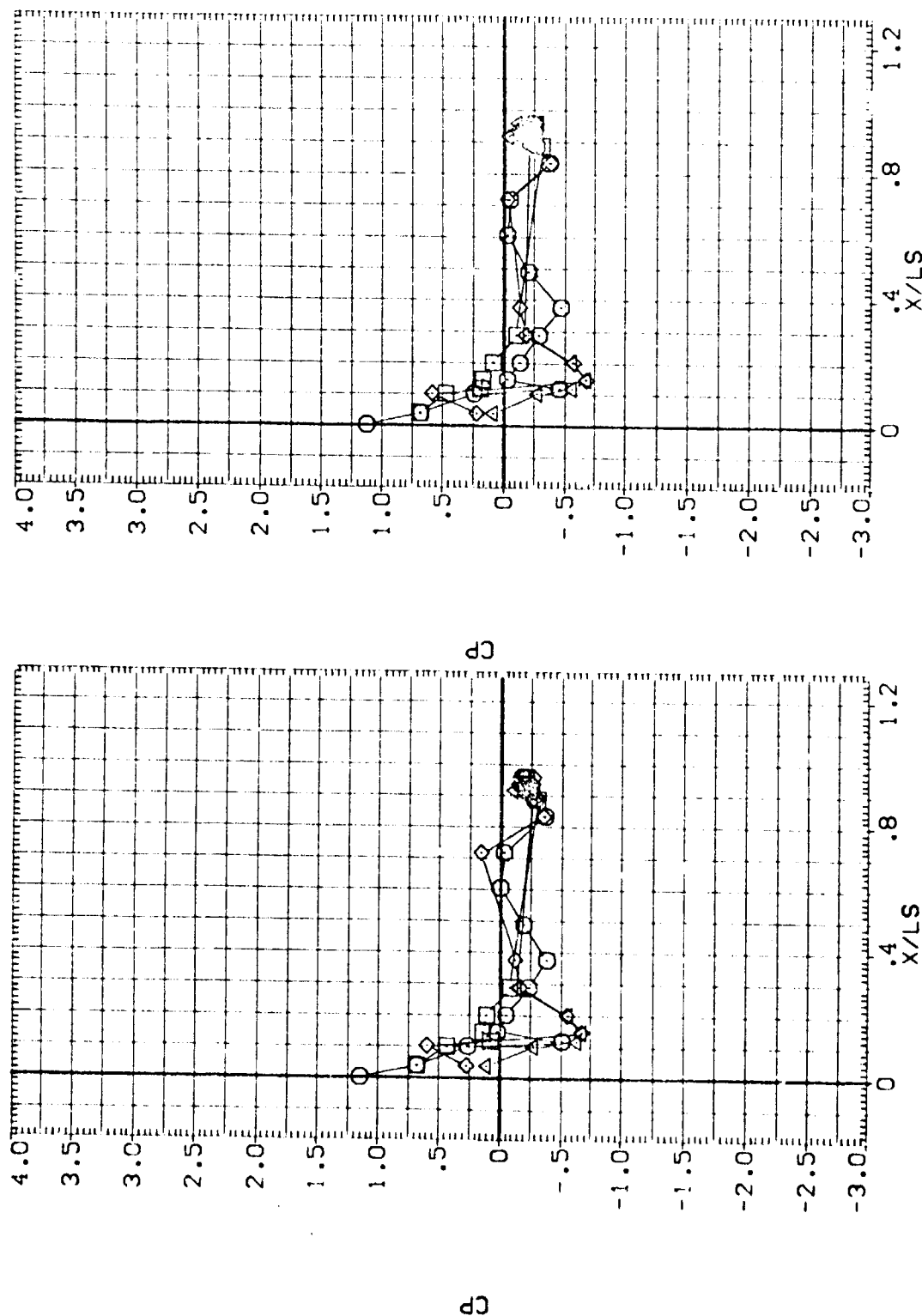
PHI  
180.000  
225.000  
270.000  
315.000

BETAT  
4.120  
8.200

ALPHAT  
-8.570

PARAMETRIC VALUES

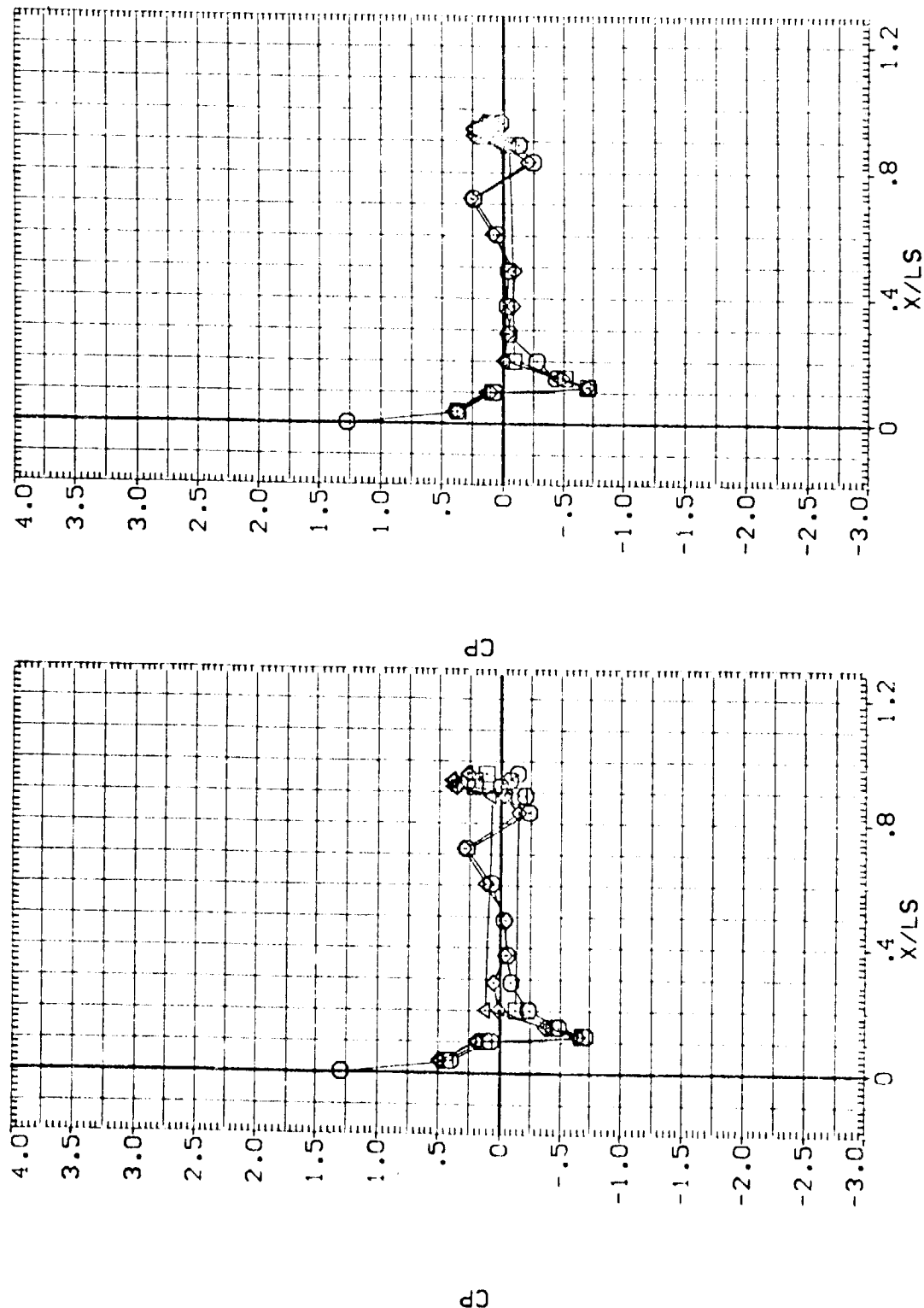
MACH 1.050 ELEVON .000  
RUDDER .000 SPDRK .000



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC11-716 IA14 01+T12+S12N25+AT11 SRM BOOSTER (RB1S38)

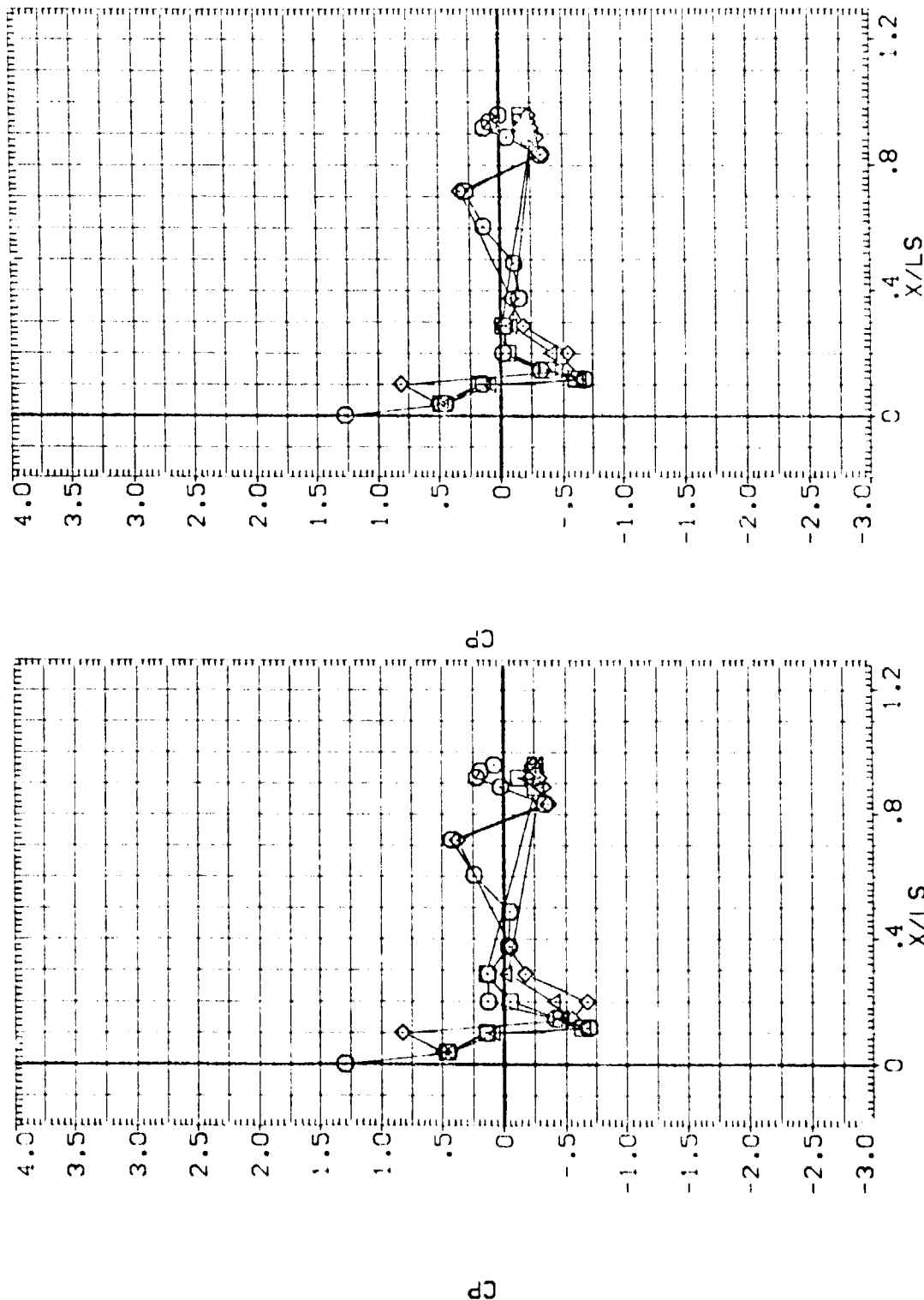
SYMBOL	PHI	BETAT	ALPHAT	PARAMETRIC VALUES	
	0.000	-8.170	-.540	MACH	1.050
	45.000	.000		ELEVON	.000
	90.000			RUDDER	.000
	135.000			SPOBRK	.000



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 SRM BOOSTER (RB1538)

SYMBOL	PHI	BETAT	ALPHAT	PARAMETRIC VALUES		
○	180.000	-8.170	-540	MACH	1.050	ELEVON
◇	225.000	.000		RUDDER	.000	SPDRK
△	270.000					
	315.000					



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC11-716 1A14 01+I12+S12N25+AT11 SRM BOOSTER (RB1S38)

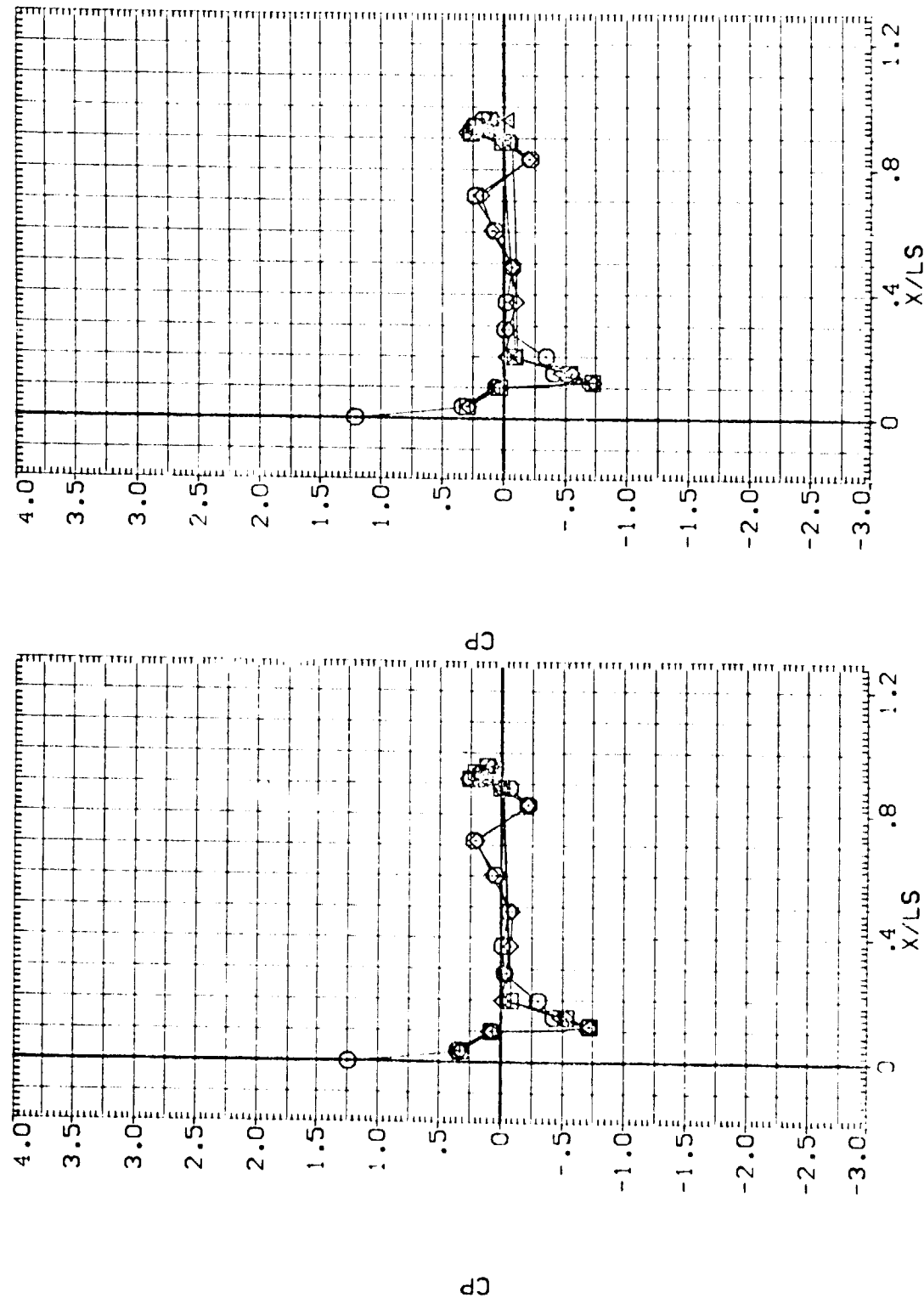
SYMBOL  
○ □ ◇ △

PHI .000  
45.000  
90.000  
135.000

BETAT 4.100  
8.180

ALPHAT -5.520

PARAMETRIC VALUES  
MACH 1.050  
RUDDER .000  
ELEVON .000  
SPOBRK .000



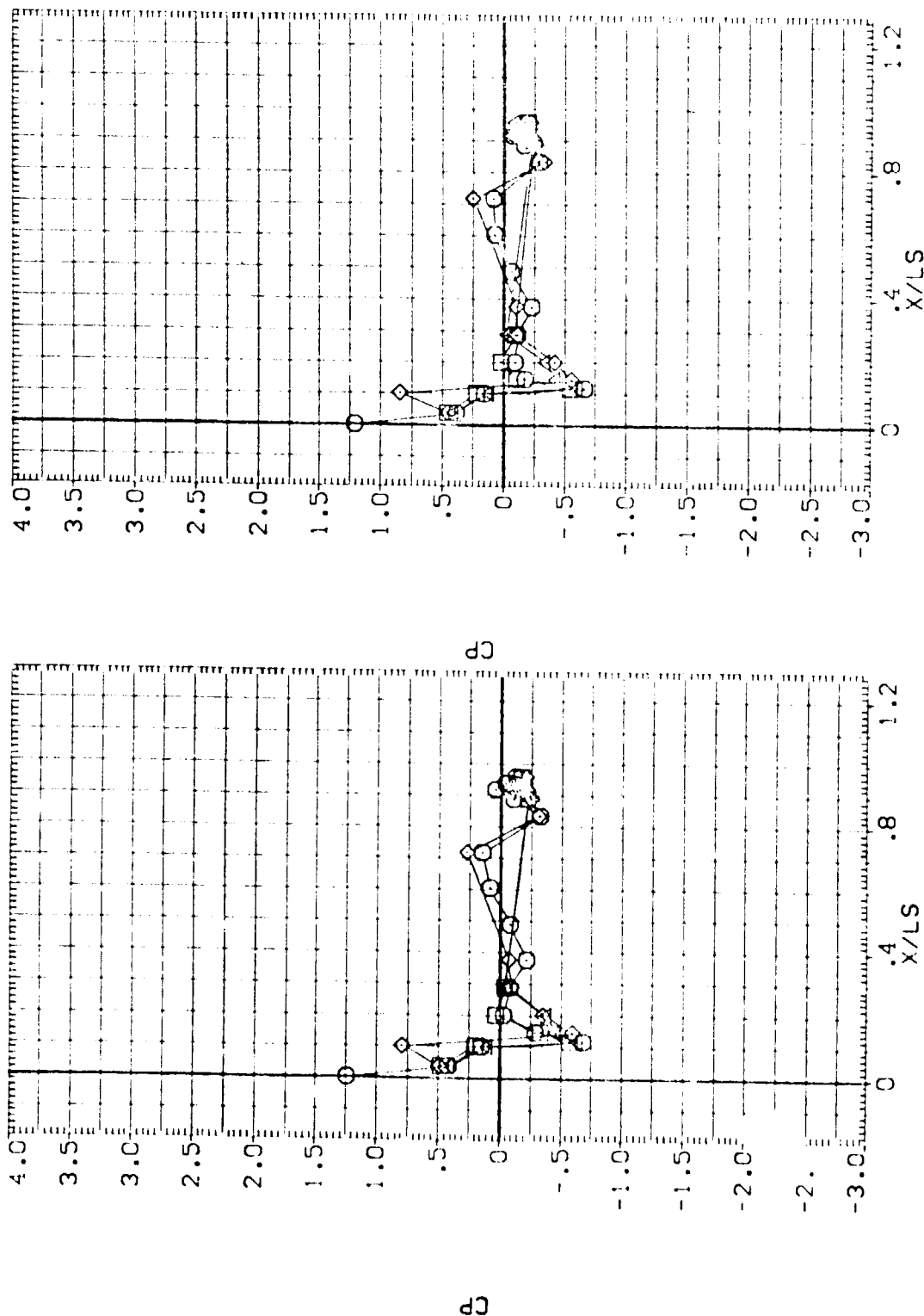
LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES



ARC11-716 IA14 01+T12+S12N25+AT11 SRM BOOSTER (RB1S38)

SYMBOL PHI BETAT ALPHAT  
 ○ 180.000 4.100 -5.20  
 ◇ 225.000 8.180  
 △ 270.000 315.000

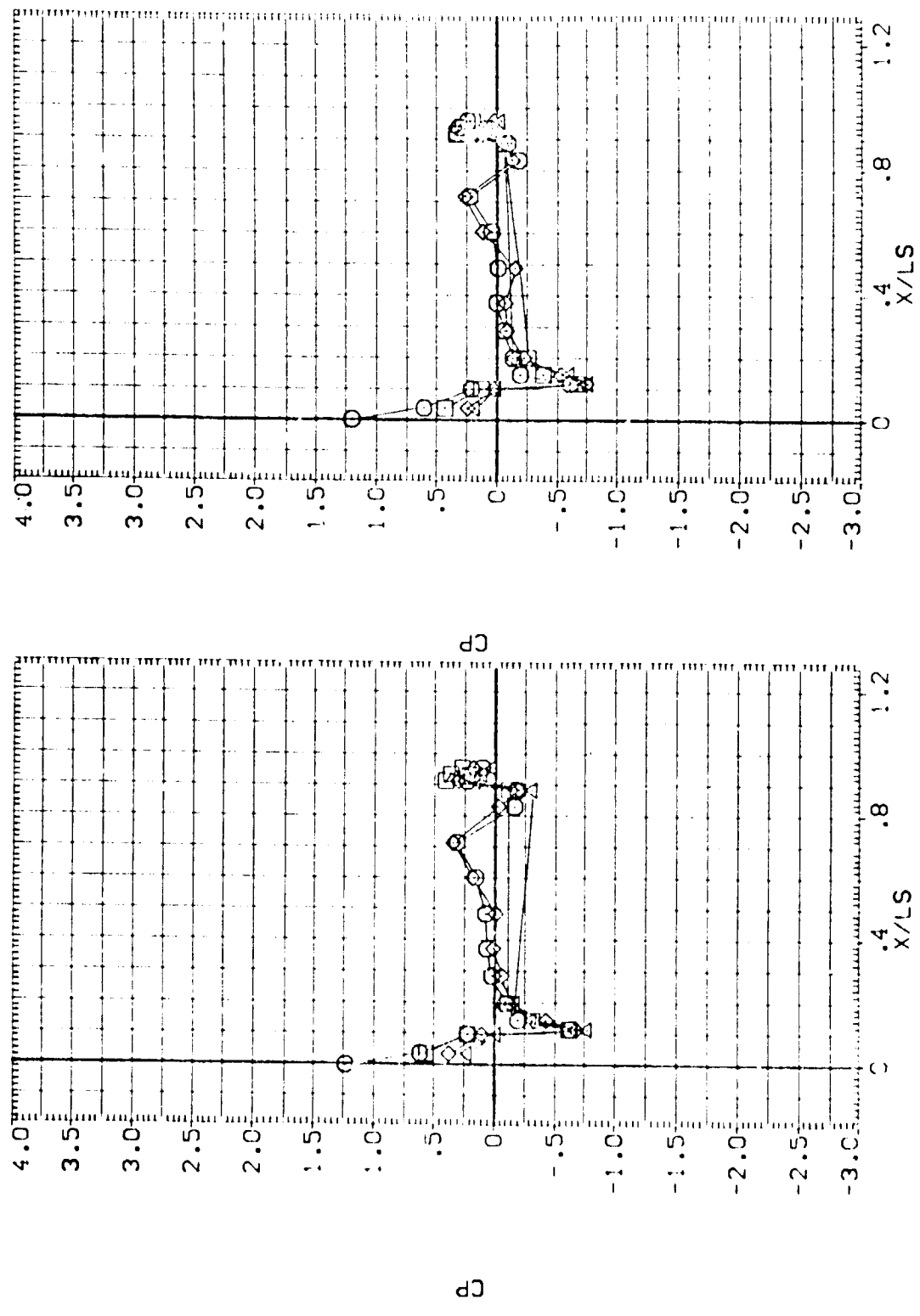
PARAMETRIC VALUES  
 MACH 1.050 ELEVCH .000  
 RUDDER .000 SPOBRK .000



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 SRM BOOSTER (RB1S38)

SYMBOL	PHI	BETAT	ALPHAT	PARAMETRIC VALUES		
○	.000	-8.160	7.950	MACH	1.050	ELEVON
◇	45.000	.000		RUDDER	.000	SPOON
△	90.000					
	135.000					



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC11-716 1A14 01+T:2+S12N25+AT11 SRM BOOSTER (RB1S38)

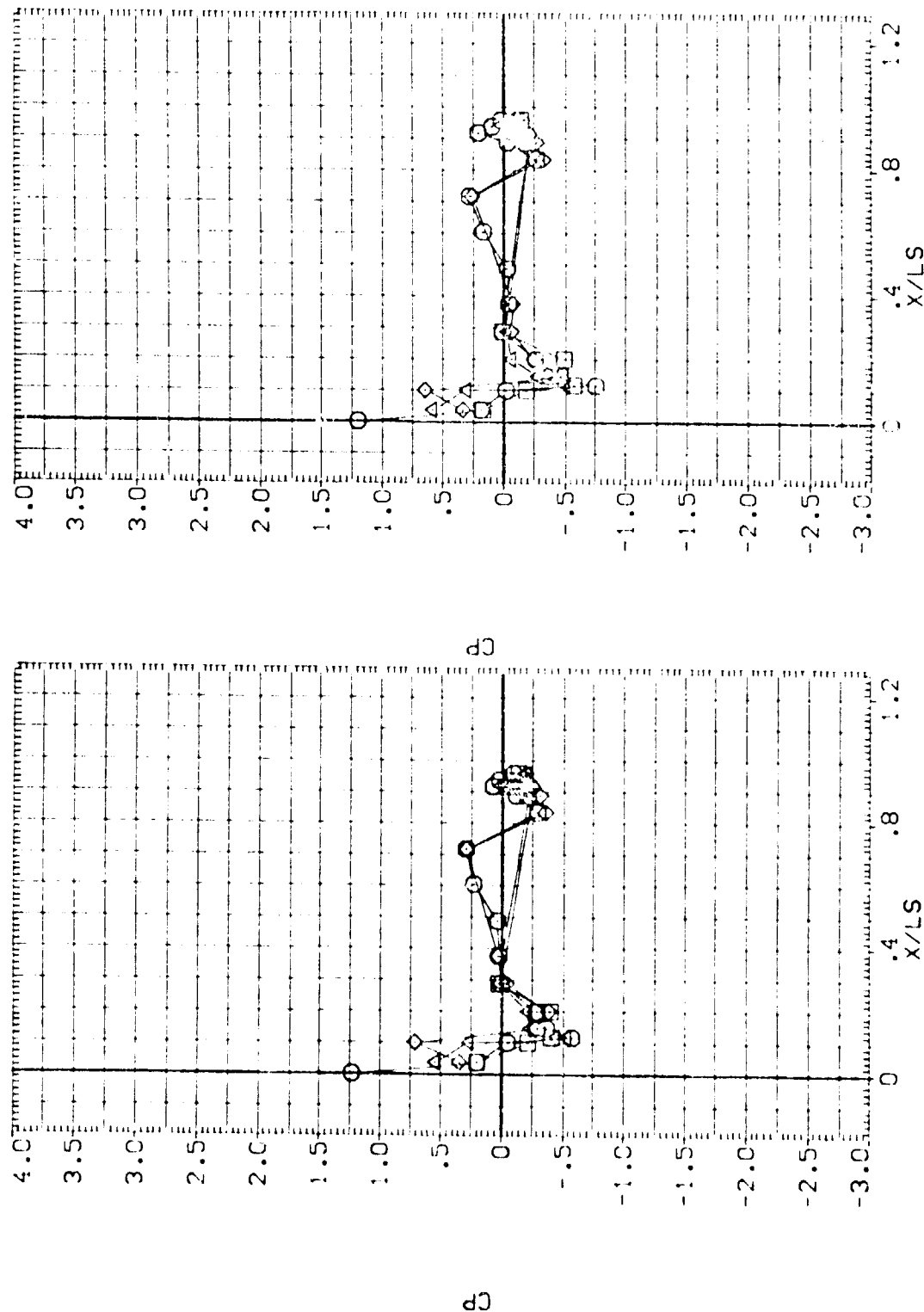
SYMBOL

PHI 180.000  
 225.000  
 270.000  
 315.000

BETAT -8.160  
 .000

ALPHAT 7.950

MACH 1.050  
 RUDDER .000  
 ELEVON .000  
 SPOILER .000



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC11-7:16 [A14 01+112+S12N25+AT11 SRM BOOSTER (RB1S38)

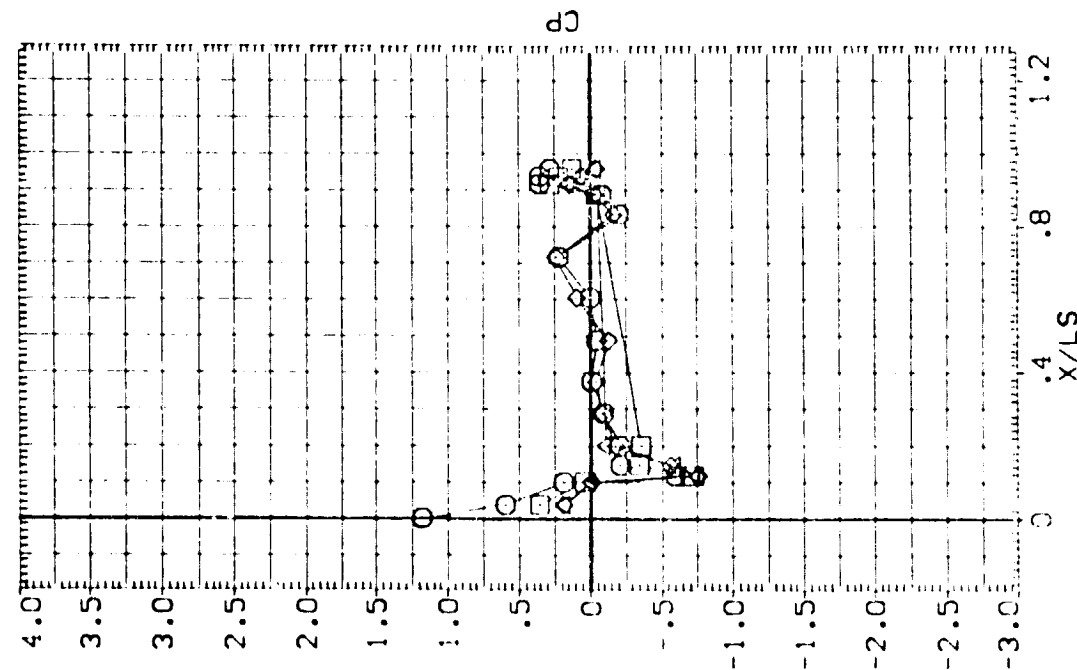
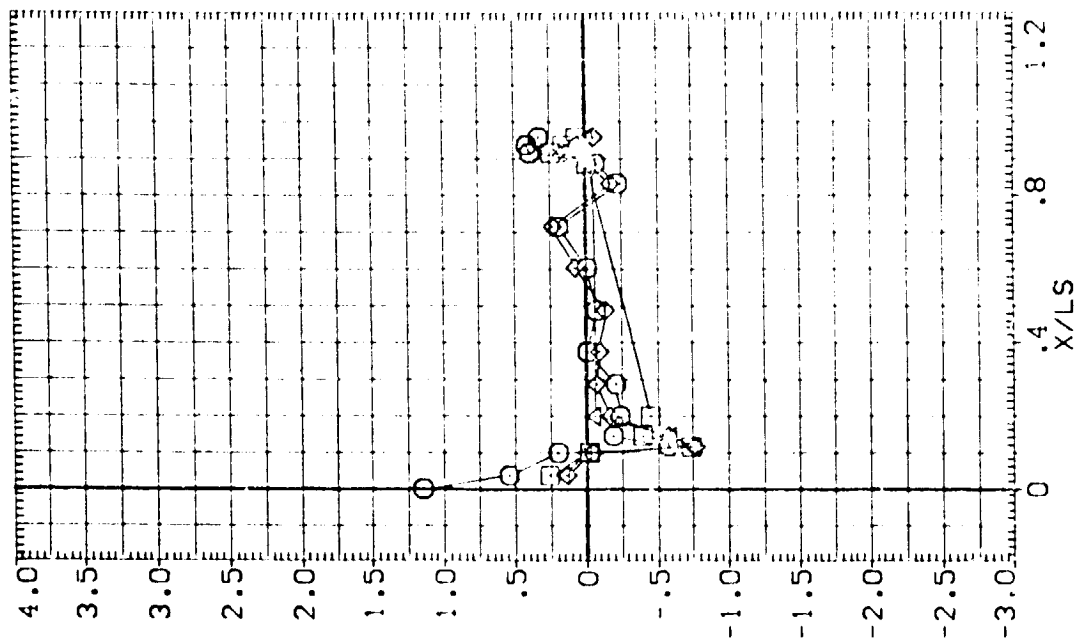
SYMBOL  
○  
◇  
△

PHI .000  
45.000  
90.000  
135.000

BETAT 1.130  
8.300

ALPHAT 8.000

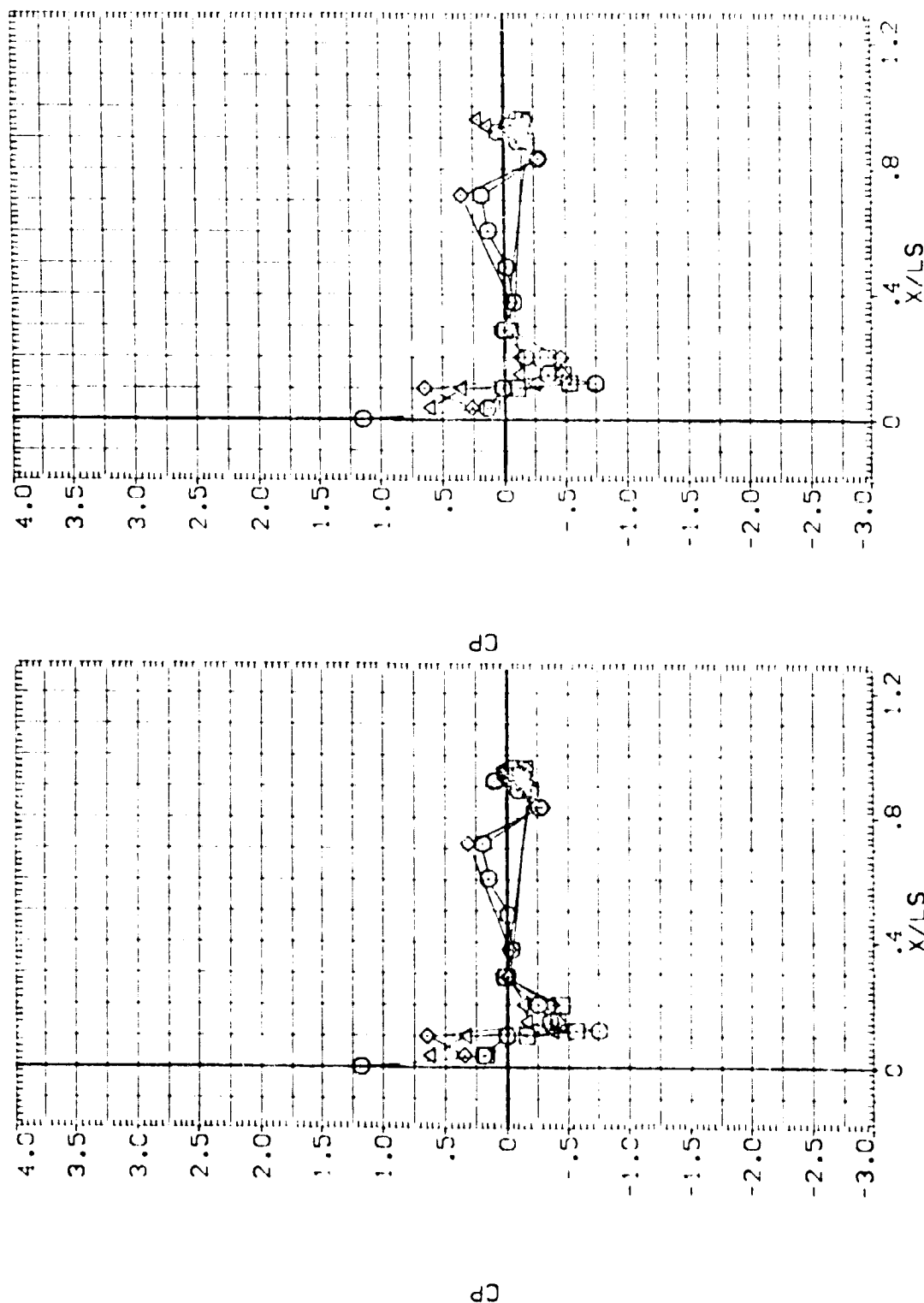
PARAMETRIC VALUES  
MACH 1.050  
RUDDER .000  
ELEVON .000  
SPOILER .000



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 SRM BOOSTER (RB:S38)

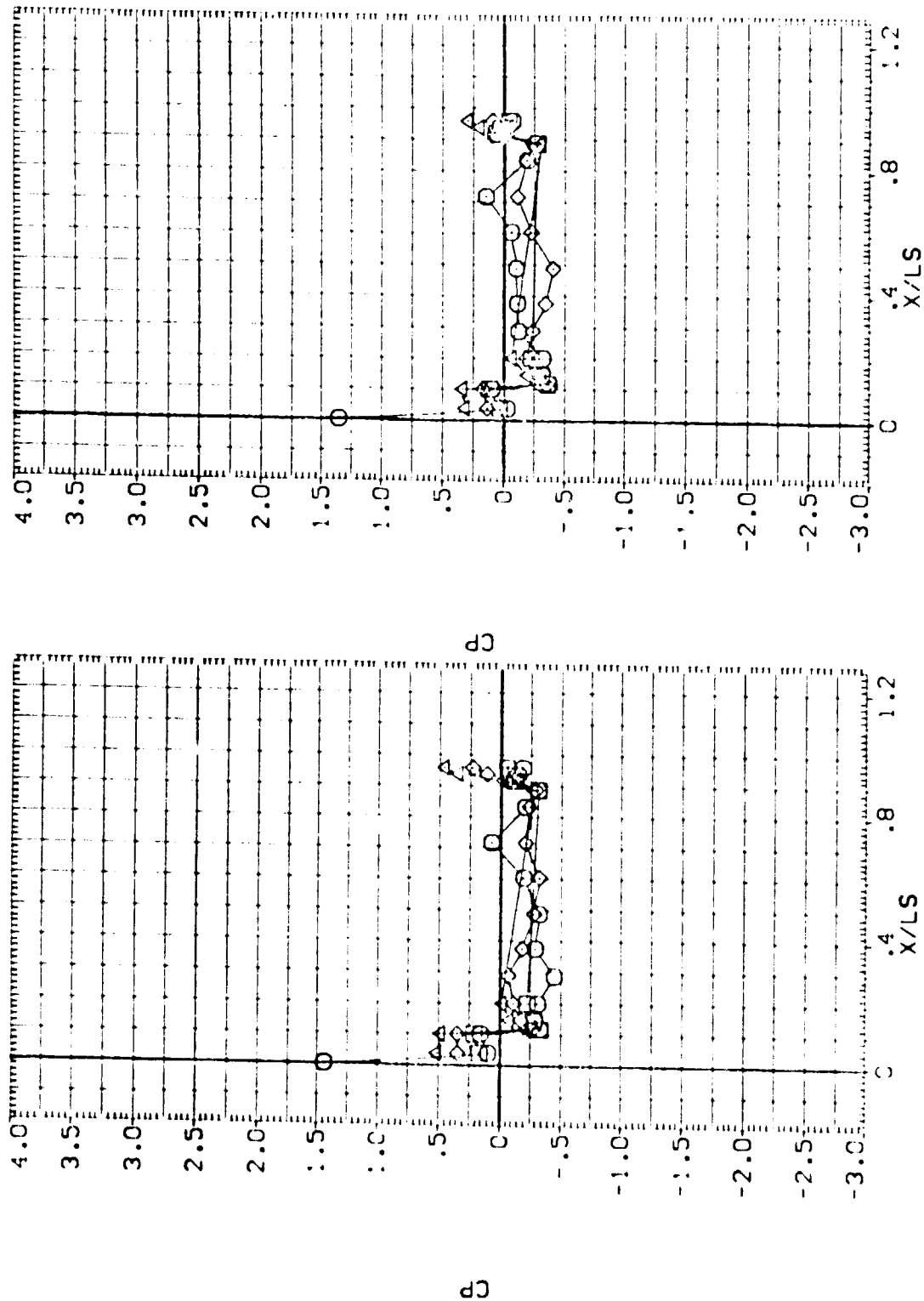
SYMBOL	PHI	BETAT	ALPHAT	PARAMETRIC VALUES		
				MACH	ELEVON	SPORRY
○	180.000	4.130	8.000	1.050	.000	.000
◇	225.000	8.300		.000	.000	.000
△	270.000					
	315.000					



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC11-716 1A14 0:112+S12N25+AT11 SRM BOOSTER (RB1S40)

SYMBOL	PR-I	BETAT	ALPHAT	PARAMETRIC VALUES		
	.000	-8.190	-8.470	MACH	1.400	ELEVON
	45.000	.000		RUDDER	.000	SPDRK
	90.000					.000
	135.000					

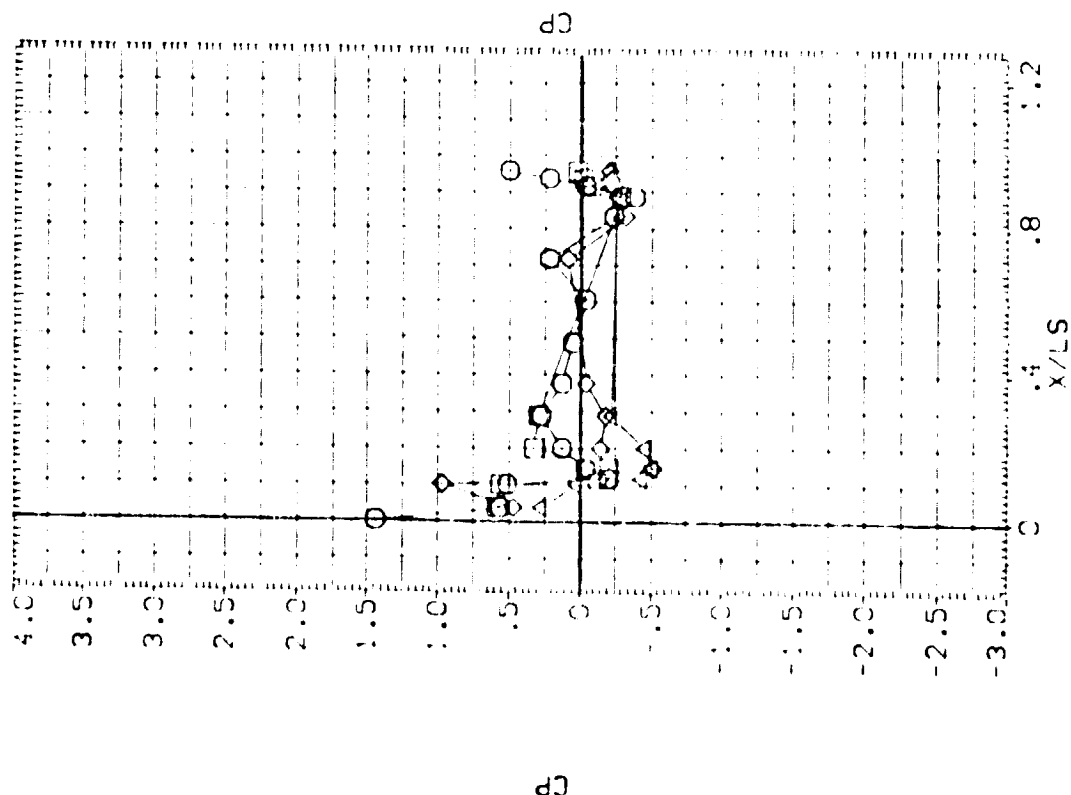
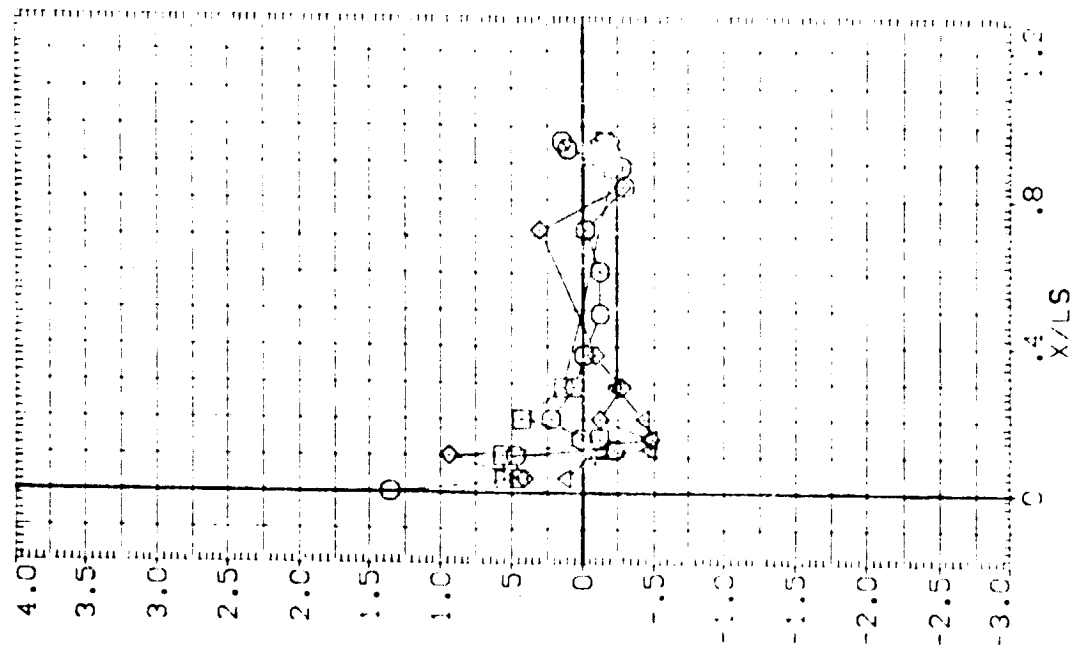


LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC:-7:6 1A14 01+T12+S12N25+AT11 SRM BOOSTER (RB:S40)

PARAMETRIC VALUES  
MACH 1.400  
ELEVEN .000  
RUDDER .000  
SP08PM .000

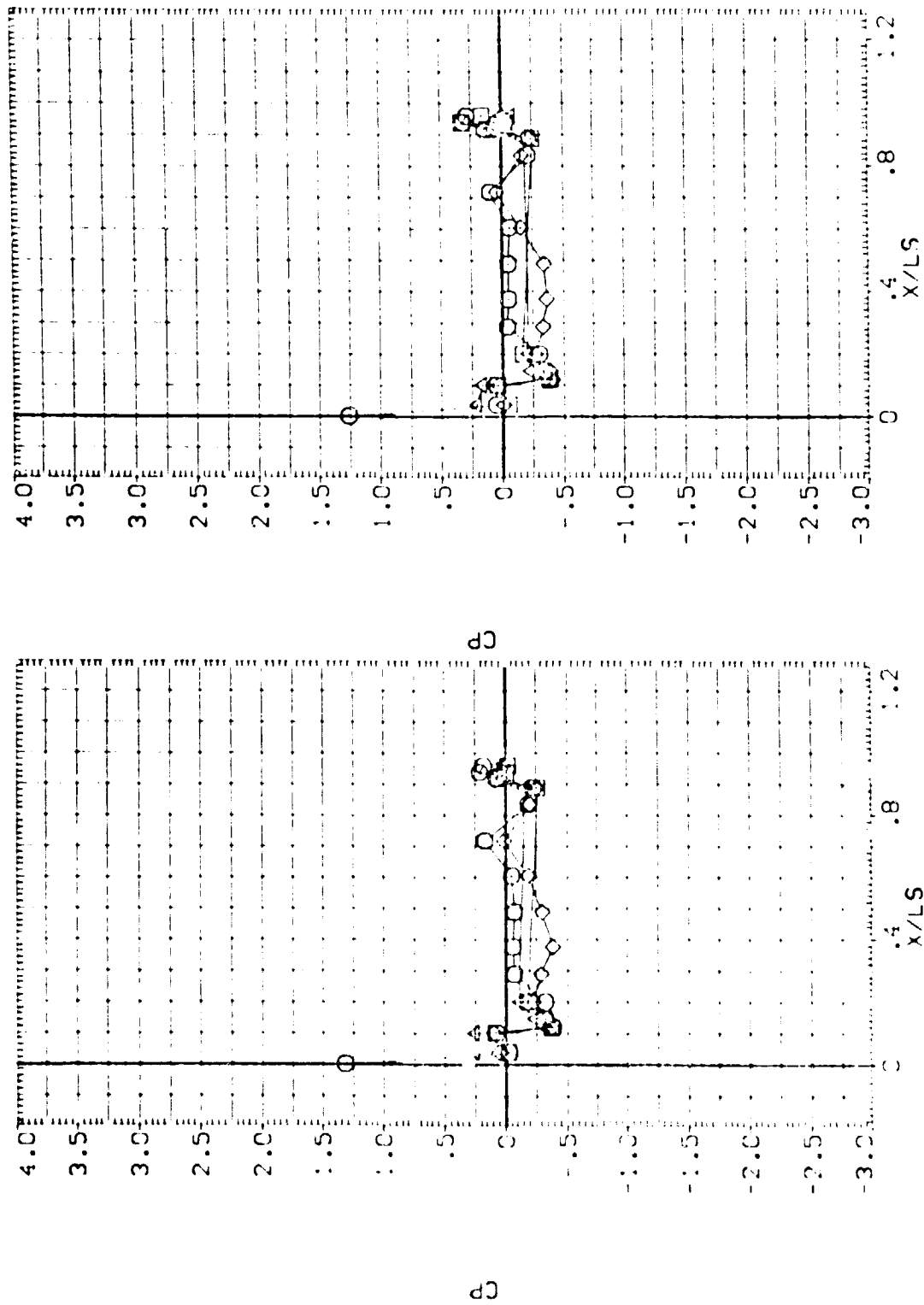
SYMBOL PH1 BETA1 A1 PHAT  
O 180.000 -8.190 -8.470  
◇ 275.000 .000  
△ 270.000  
315.000



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC:-716 1A14 01+712+S12.25+AT11 SRM BOOSTER (R81S40)

SYMBOL	PHI	BETA	ALPHA	MACH	ELEVON	SPD
○	.000	4.120	-8.430	1.400	.000	.000
◇	45.000	8.270		.000	SPD	
△	90.000					
▽	135.000					



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES



ARC11-716 1A14 01+T12+S12N25+AT11 DM BOOSTER (RB1S40)

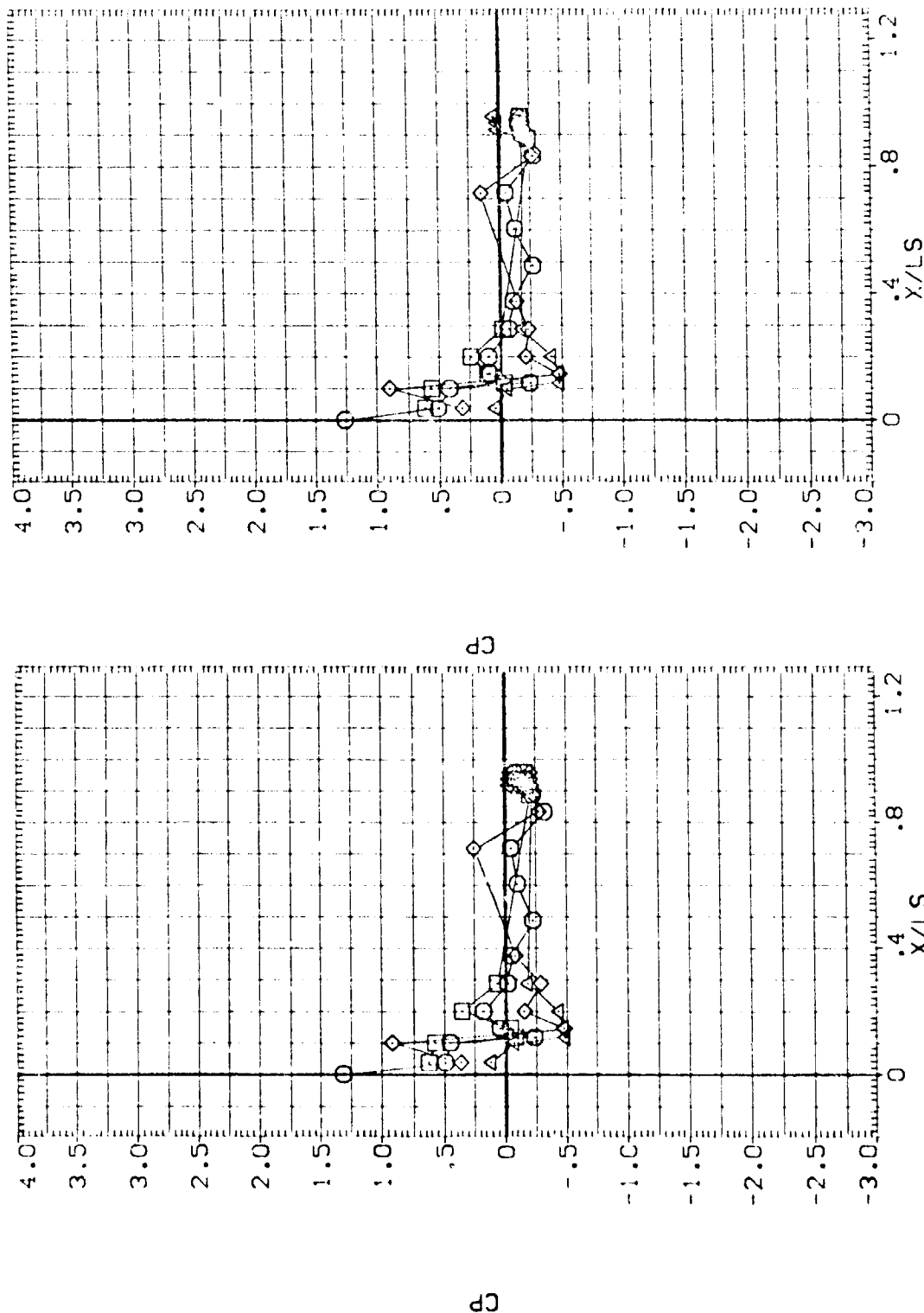
SYMBOL  
 ○ □ ◇ △

PHI 180.000  
 225.000  
 270.000  
 315.000

BETAT 4.120  
 8.270

ALPHAT -8.430

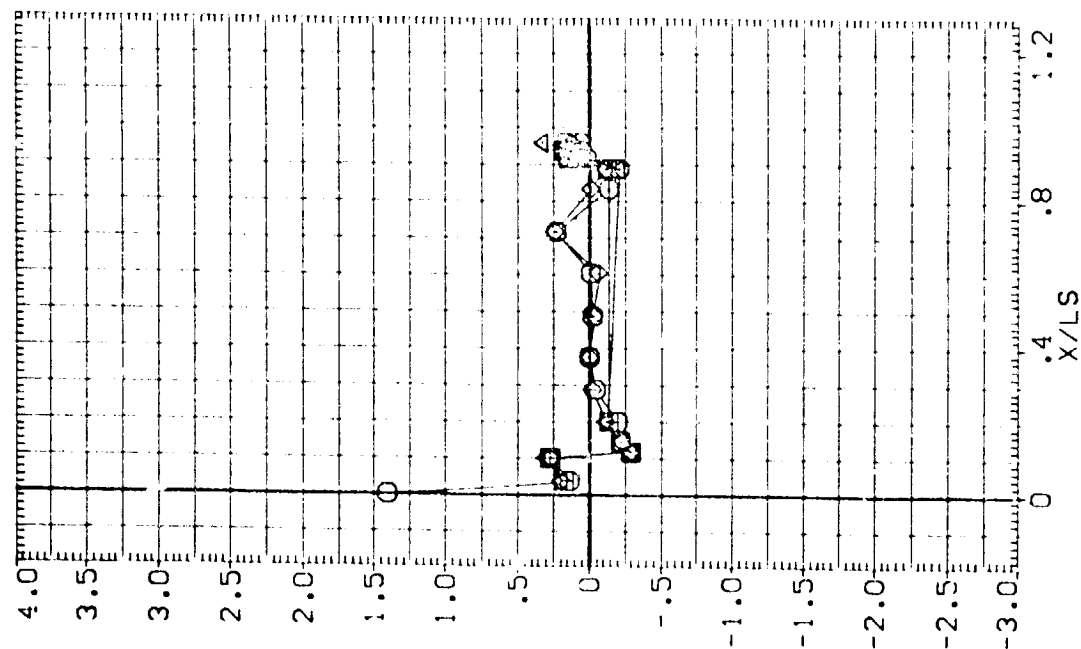
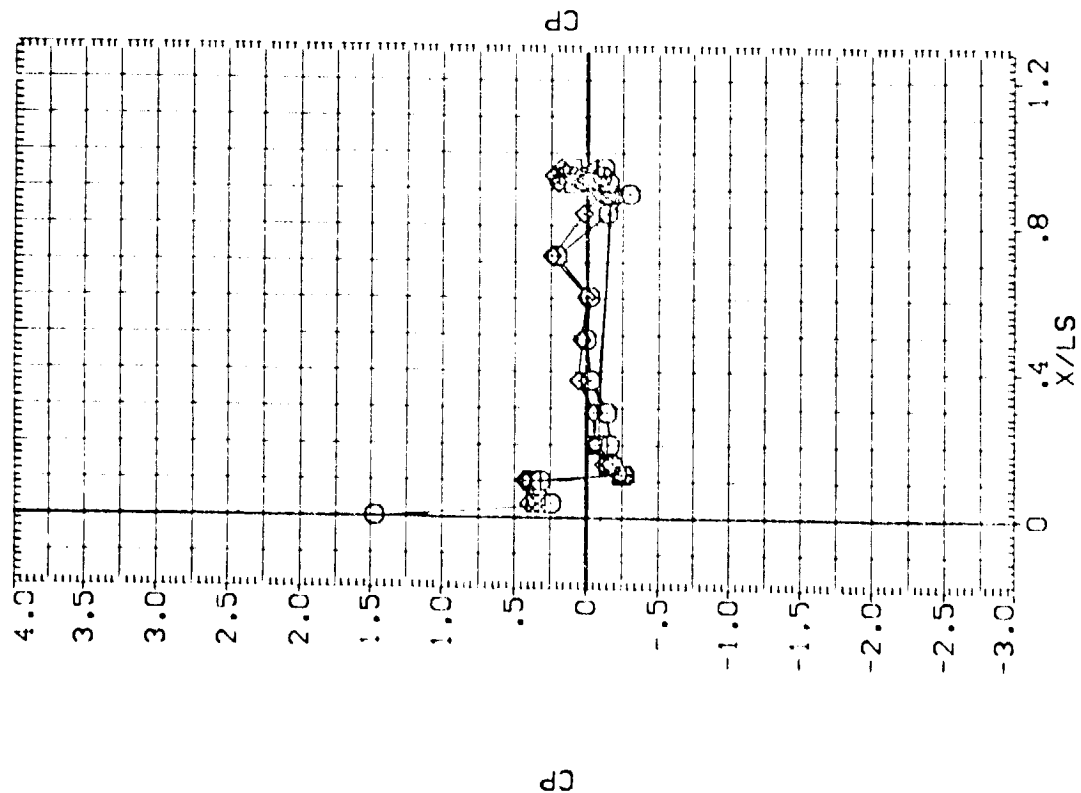
PARAMETRIC VALUES  
 MACH 1.400  
 RUDDER .000  
 ELEVON .000  
 SPOBRK .000



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC11-716 1A14 01+112+S12N25+AT11 SRM BOOSTER (RB1S40)

SYMBOL	PHI	BETAT	ALPHAT	PARAMETRIC VALUES
○	.000	-8.230	-.560	MACH 1.400 ELEVCH .000
□	45.000	-.010		RUDDER .000 SPDRK .000
◇	90.000			
△	135.000			



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC11-716 IA14 01+T12+S12N25+AT11 SRM BOOSTER (RB1S40)

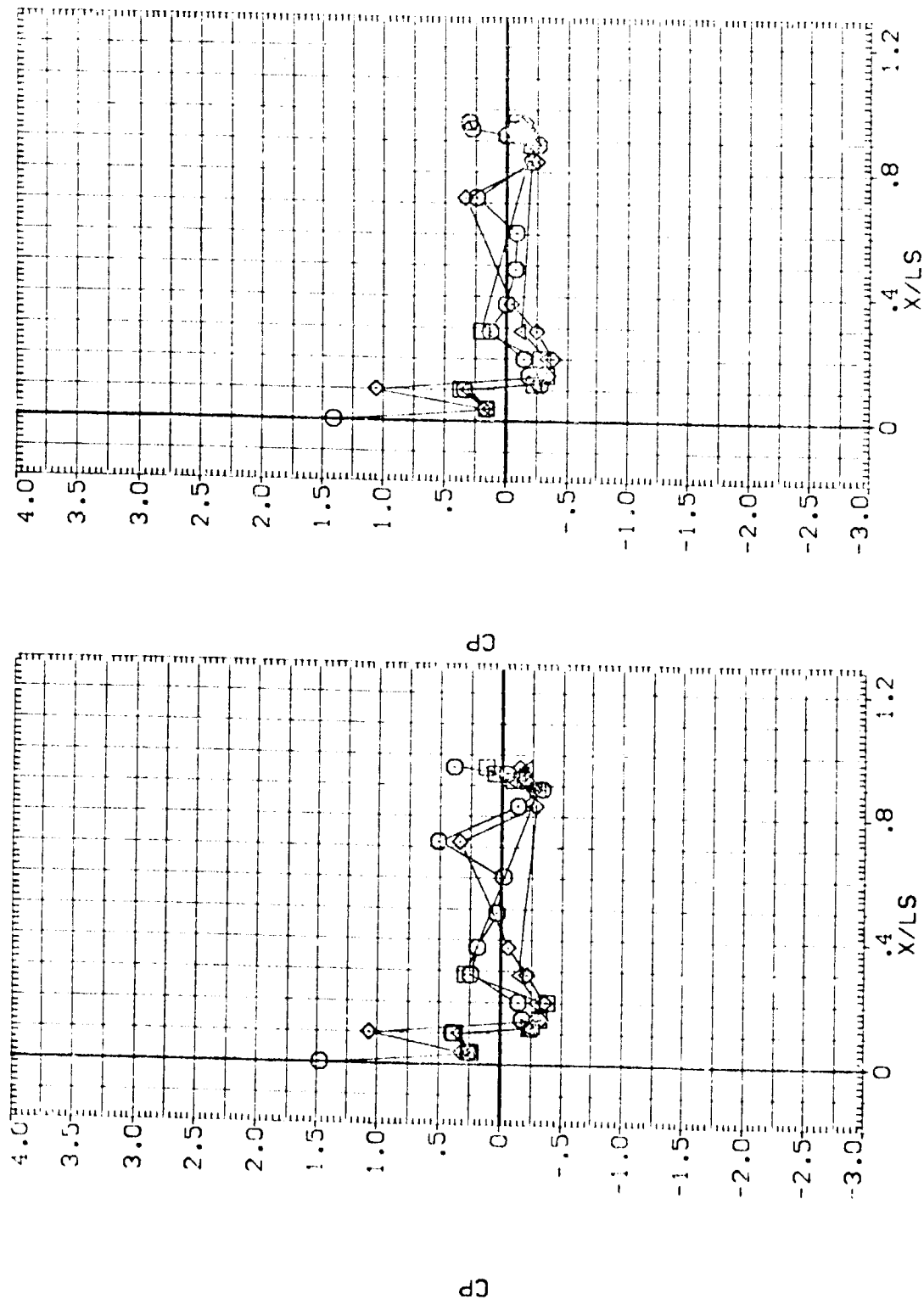
SYMBOL

180.000  
225.000  
270.000  
315.000

BETAT  
-8.230  
-0.010

ALPHAT  
-0.560

PARAMETRIC VALUES  
MACH 1.400  
RUDDER .000  
ELEVON .000  
SPDBRK .000



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 SRM BOOSTER (RB1S40)

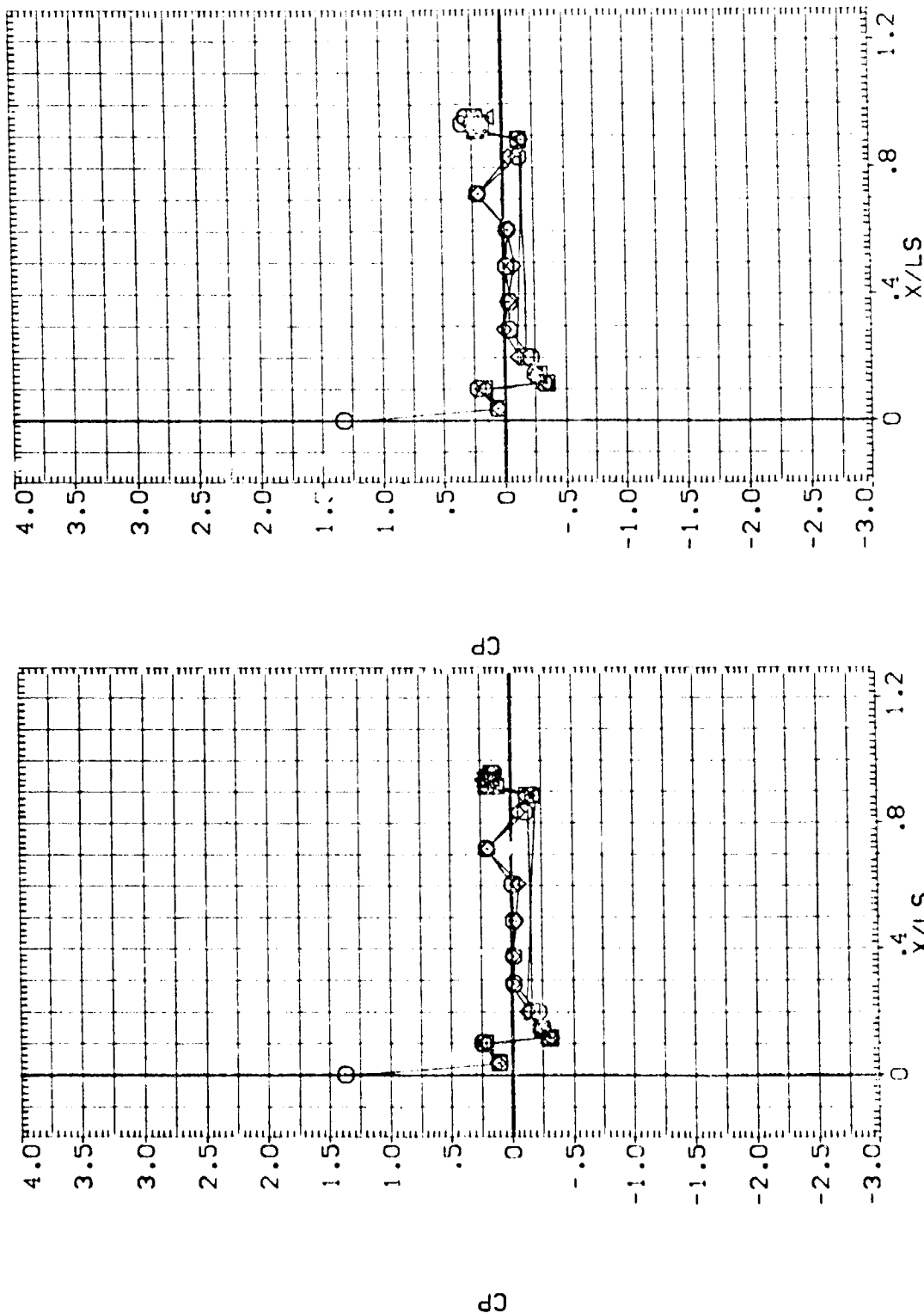
SYMBOL  
 O □ ◇ △

PHI .000  
 45.000  
 90.000  
 135.000

BETAT 4.110  
 8.210

ALPHAT - .550

PARAMETRIC VALUES  
 MACH 1.400  
 RUDDER .000  
 ELEVON .000  
 SPOILER .000



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC11-716 1A14 01+112+S12N25+AT11 SRM BOOSTER (R31S40)

SYMBOL

PHI

BETAT

ALPHAT

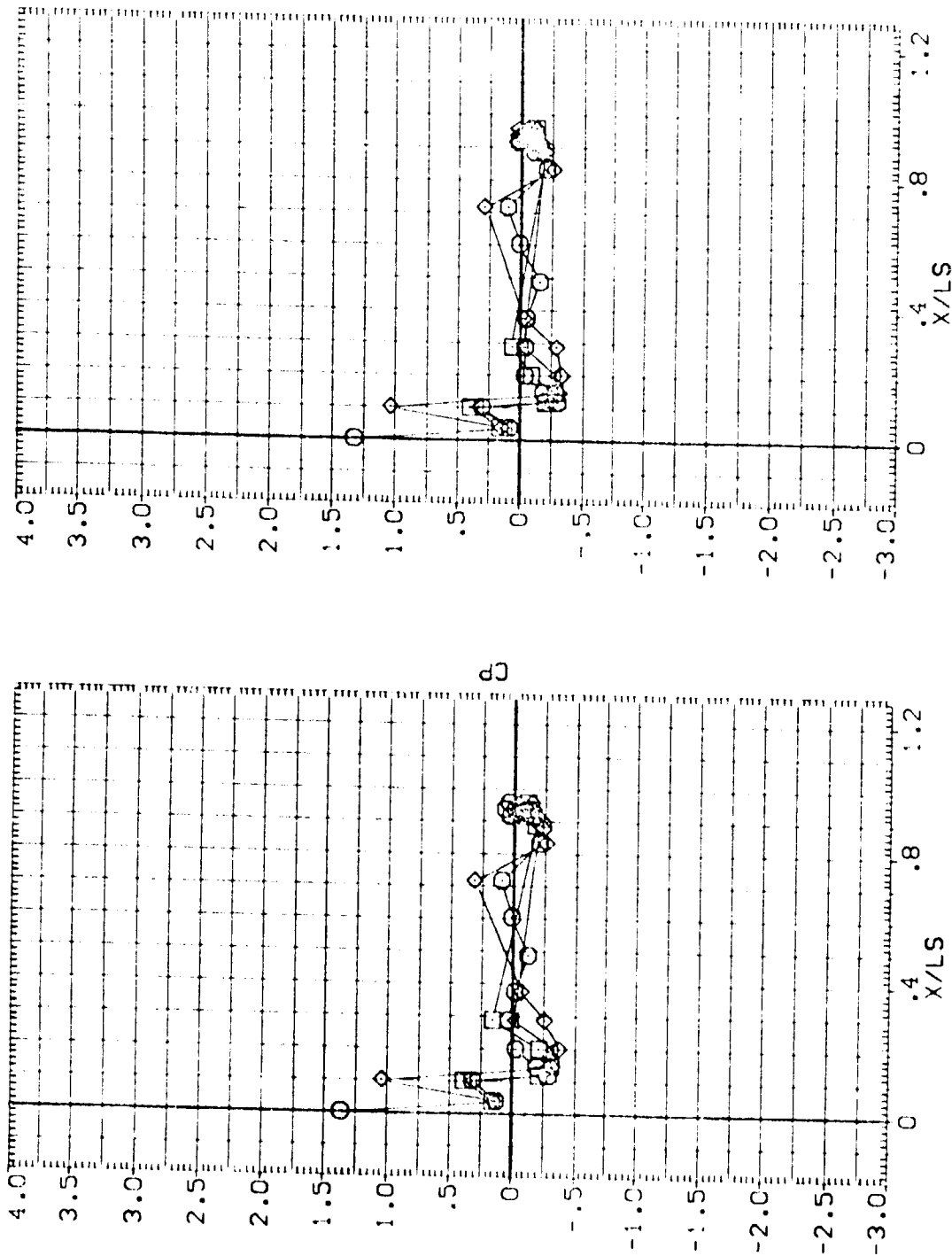
180.000  
225.000  
270.000  
315.000

4.110  
8.210

-.550

PARAMETRIC VALUES

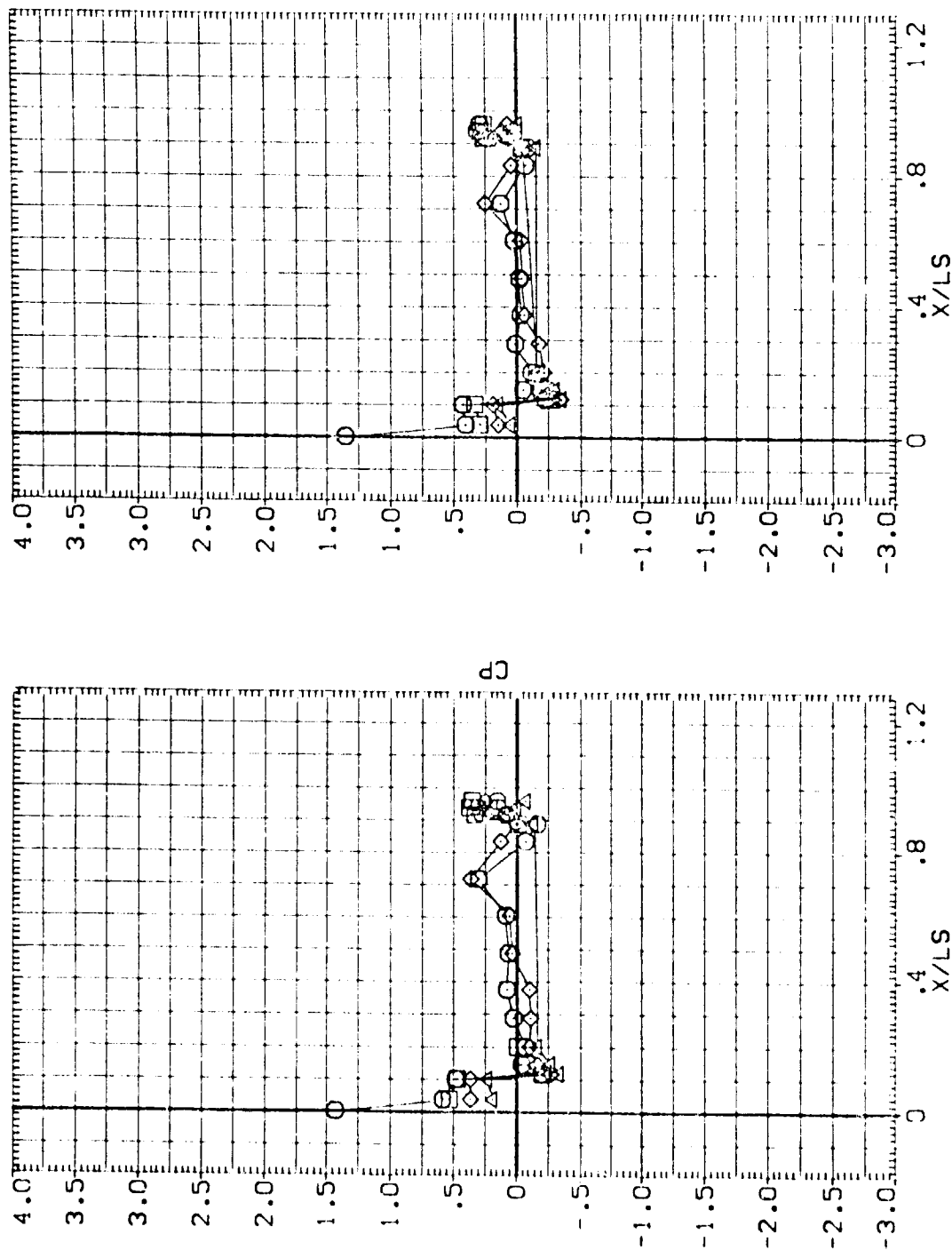
MACH 1.400 ELEVON .000  
RUDDER .000 SPDRM .000



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 SRM BOOSTER (RB1S40)

SYMBOL	PHI	BETAT	ALPHAT	MACH	PARAMETRIC VALUES
○	.000	-8.220	8.120	RUDDER	1.400 ELEVON .000
□	45.000	.000			SPOBRK .000
◇	90.000				
△	135.000				



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT11 SRM BOOSTER (RB1S4CJ)

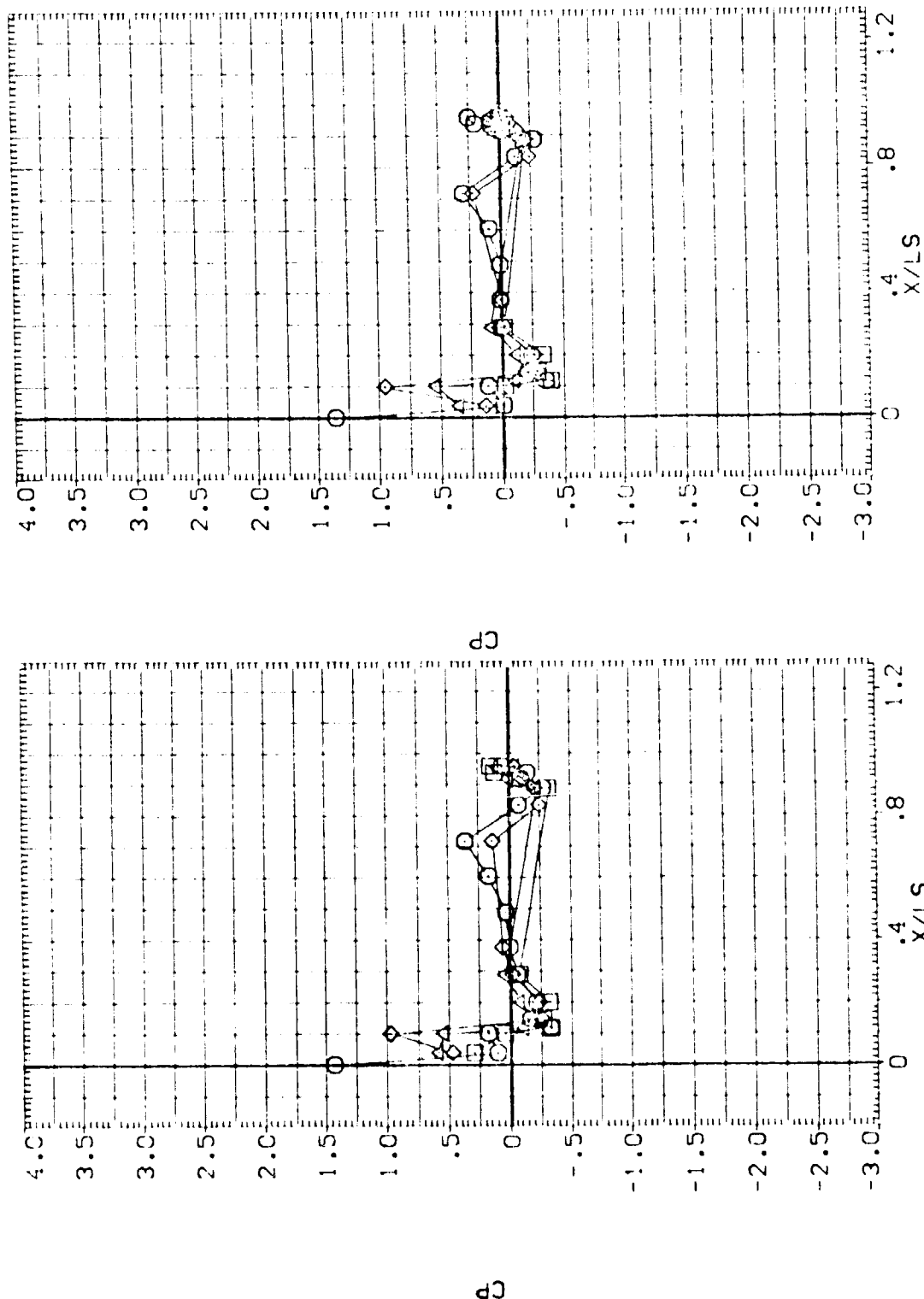
SYMBOL

100.000  
275.000  
270.000  
315.000

BETAT -8.220  
ALPHAT 8.120  
.000

PARAMETRIC VALUES

MACH 1.400  
RUDDER .000  
ELEVON .000  
SPDBR .000



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

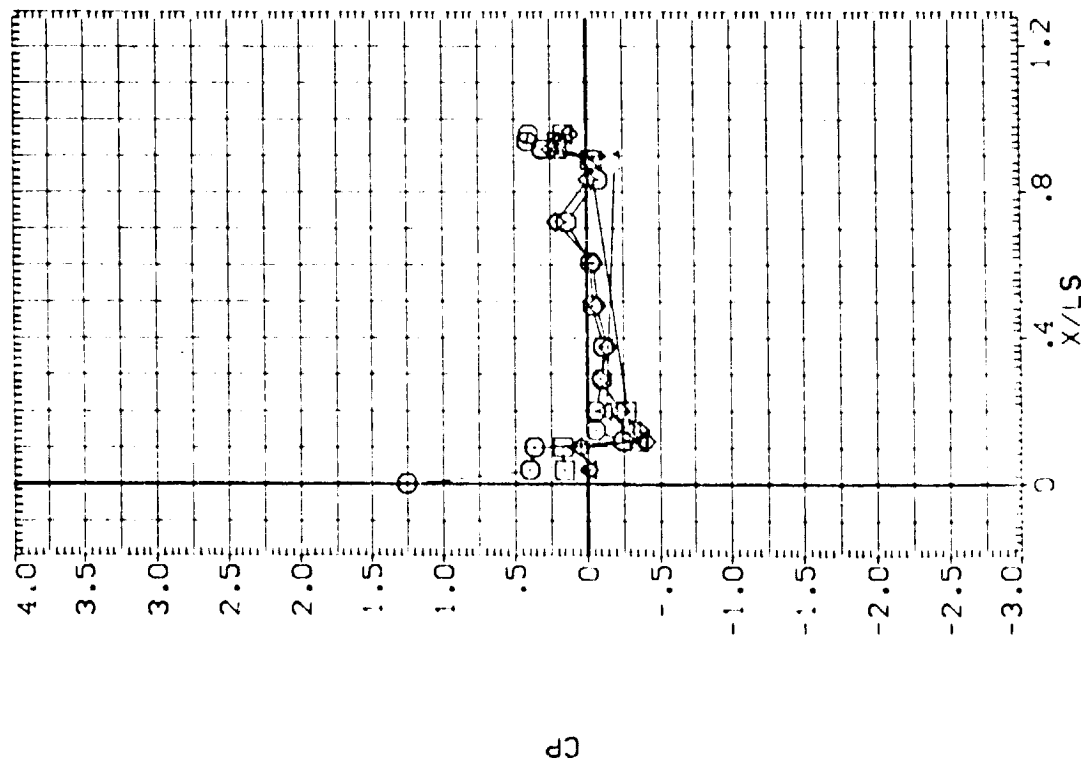
ARC11-716 1A14 01+T12+S12N25+AT11 SRM BOOSTER (RB1S40)

SYMBOL  
○  
◇  
△

PHI .000  
45.000  
90.000  
135.000

BETAT 8.300  
ALPHAT 8.150

PARAMETRIC VALUES  
MACH 1.400  
ELEVON .000  
RUDDER .000  
SPDBRK .000



LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES



ARC11-716 1A14 01+112+S12N25+AT11 SRM BOOSTER (RB:S40)

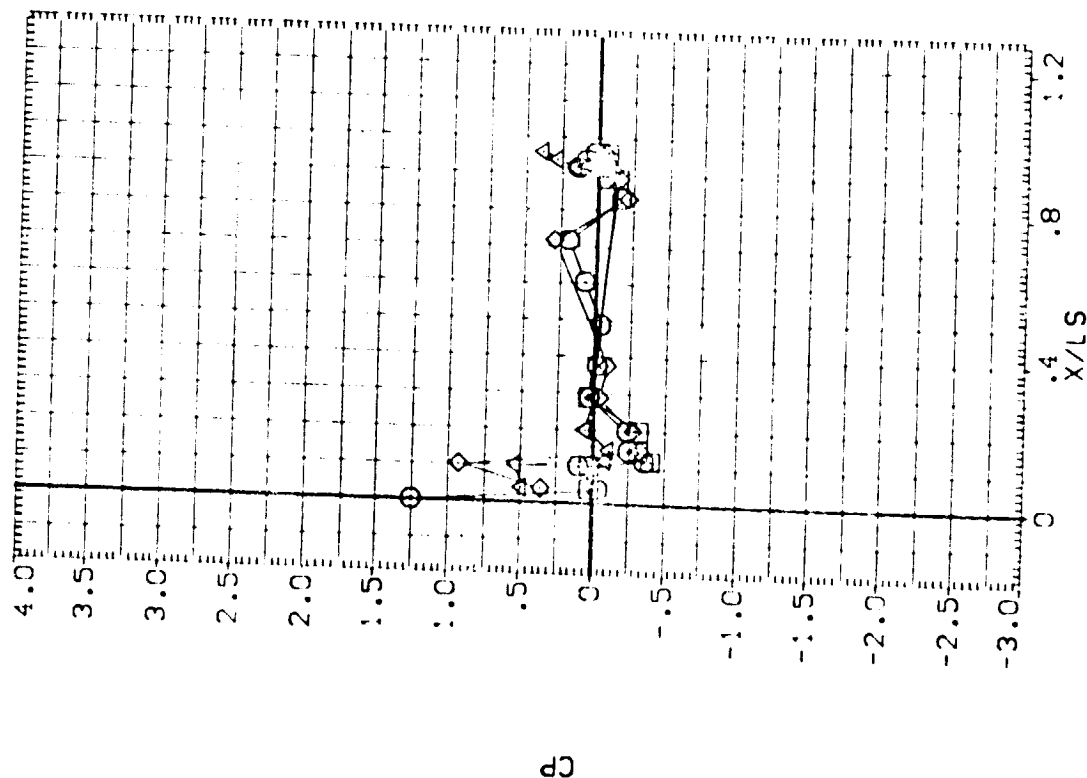
SYMBOL

PHI  
180.000  
225.000  
270.000  
315.000

BETAT  
8.300  
ALPHAT  
8.150

PARAMETRIC VALUES

MACH  
1.400  
ELEVON  
.000  
RUDDER  
.000  
SPOILER  
.000

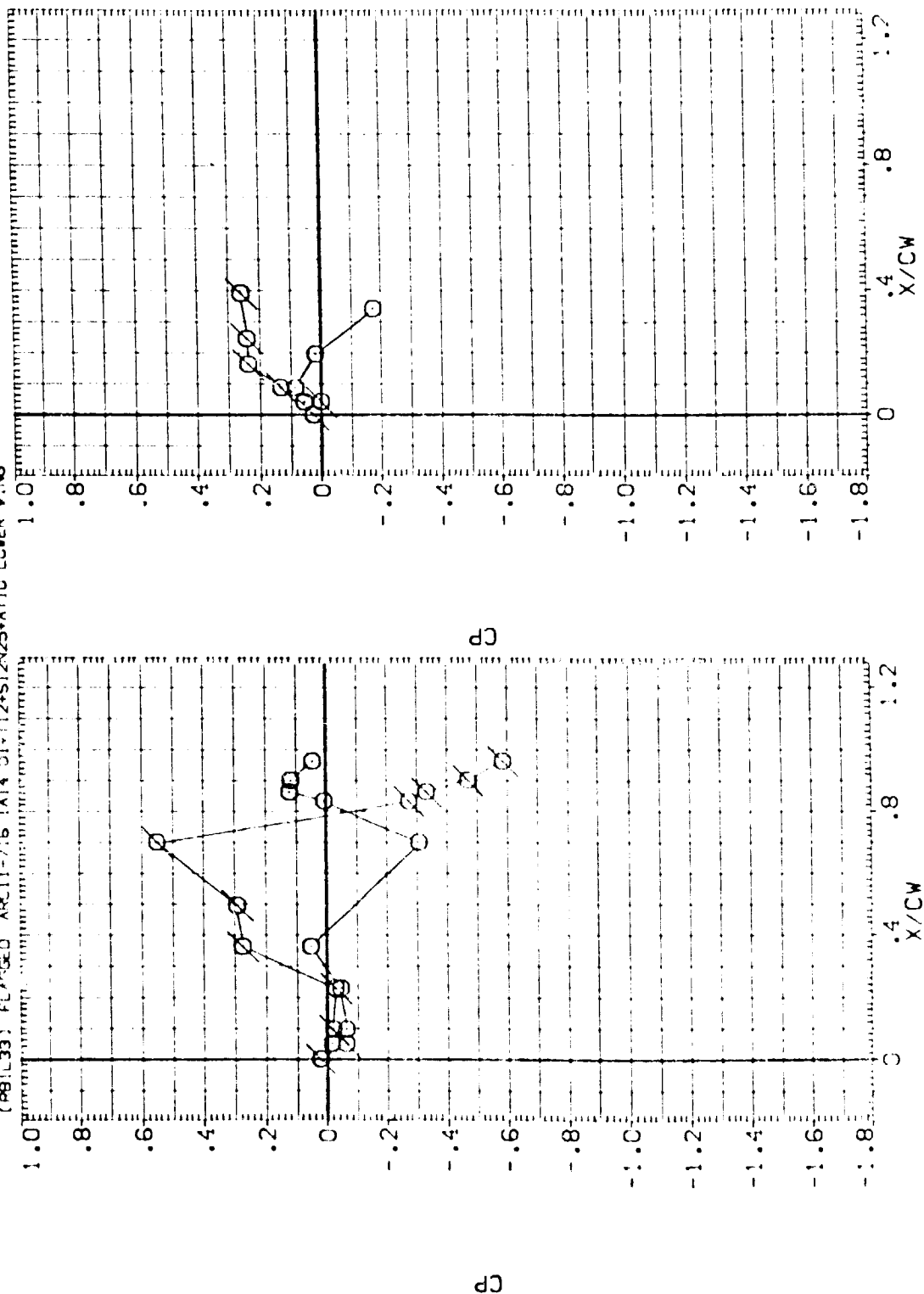


LONGITUDINAL DISTRIBUTION OF SRM BOOSTER PRESSURES

PARAMETRIC VALUES  
MACH 1.250 ELEVON .000  
RUDDER .000 SPOILER .000

SYMBOL ALPHAAD Y/BV BETAAD  
O -7.60 .299 -8.420  
.364

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
(PB1U33) OPEN ARC11-716 [A]4 [O]T12+S12N25+AT10 UPPER WING  
(PB1L33) FLANGED ARC11-716 [A]4 [O]T12+S12N25+AT10 LOWER WING

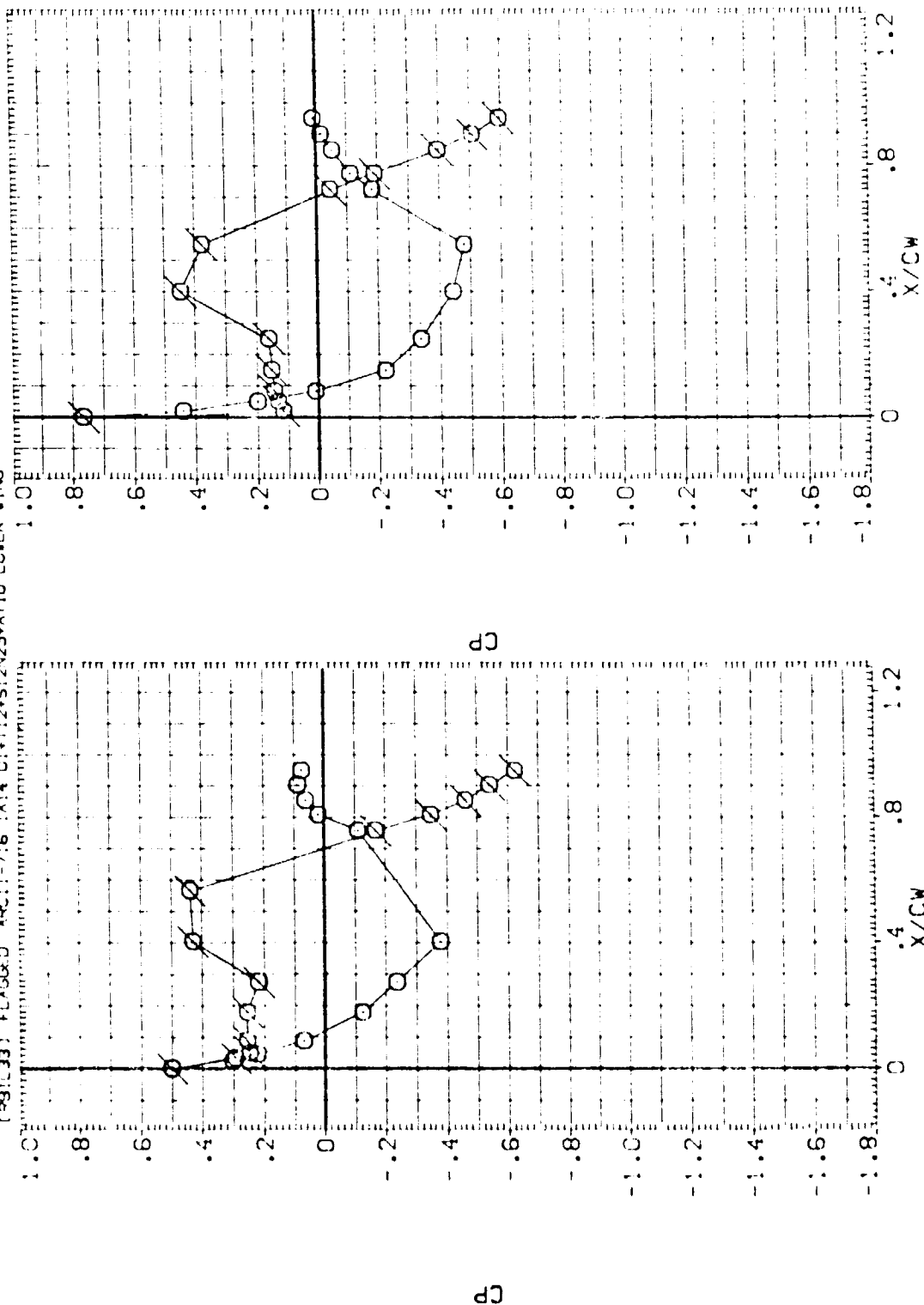


CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

PARAMETRIC VALUES	
1.250	ELEVON .000
.000	SPOBRK .000

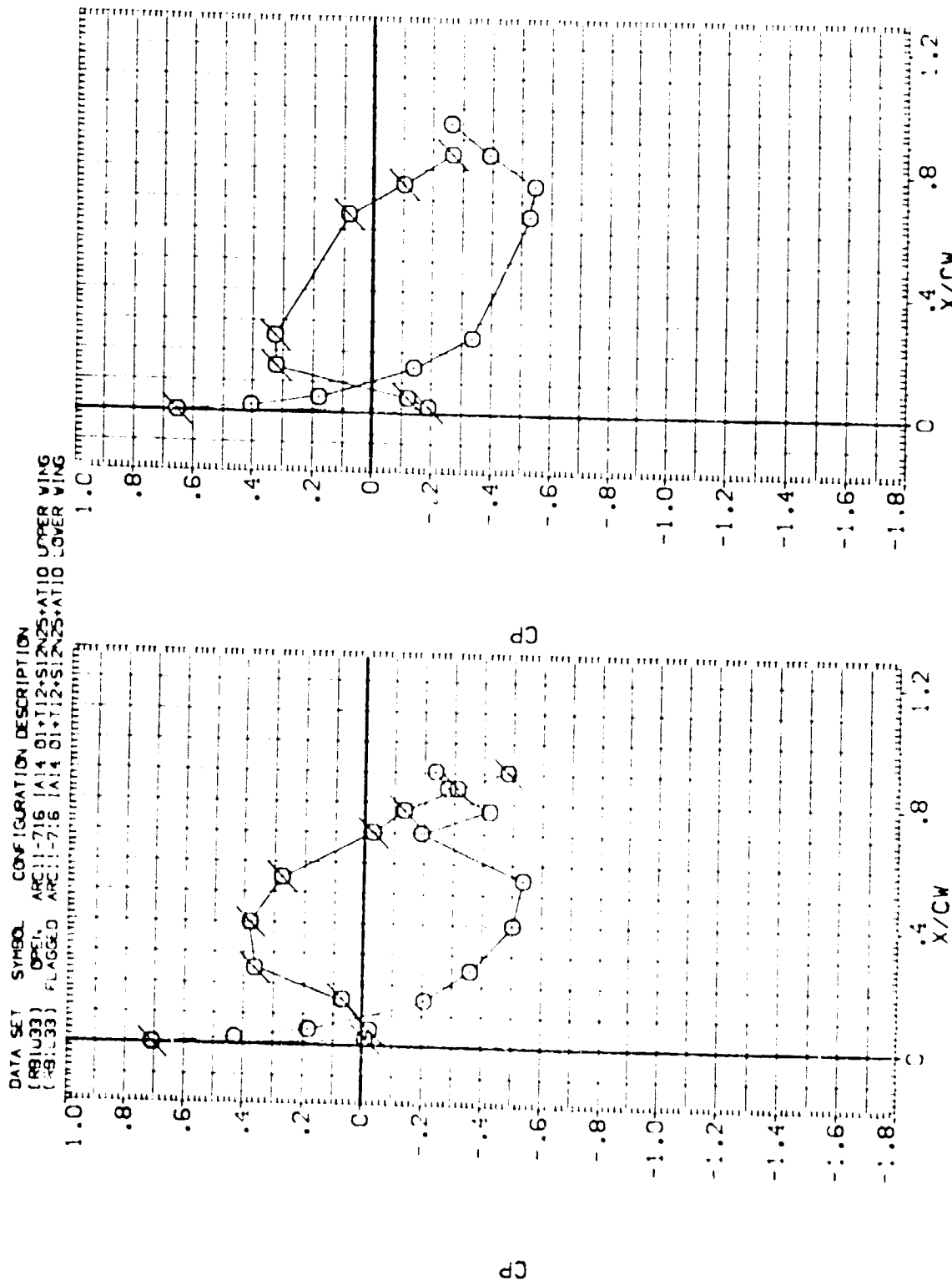
SYMBOL	$\Delta P_{\text{H2O}}$	$Y/\text{BA}$	BETA
○	-.760	.427	-8.420
		.534	

DATA SET	SYMBOL	CONFIGURATION	DESCRIPTION
(RBIU33)	OPEN	ARC11-716 1A14 01+112+S12N25+AT10	UPPER WING
(RBIU33)	FLAGGED	ARC11-716 1A14 01+112+S12N25+AT10	LOWER WING



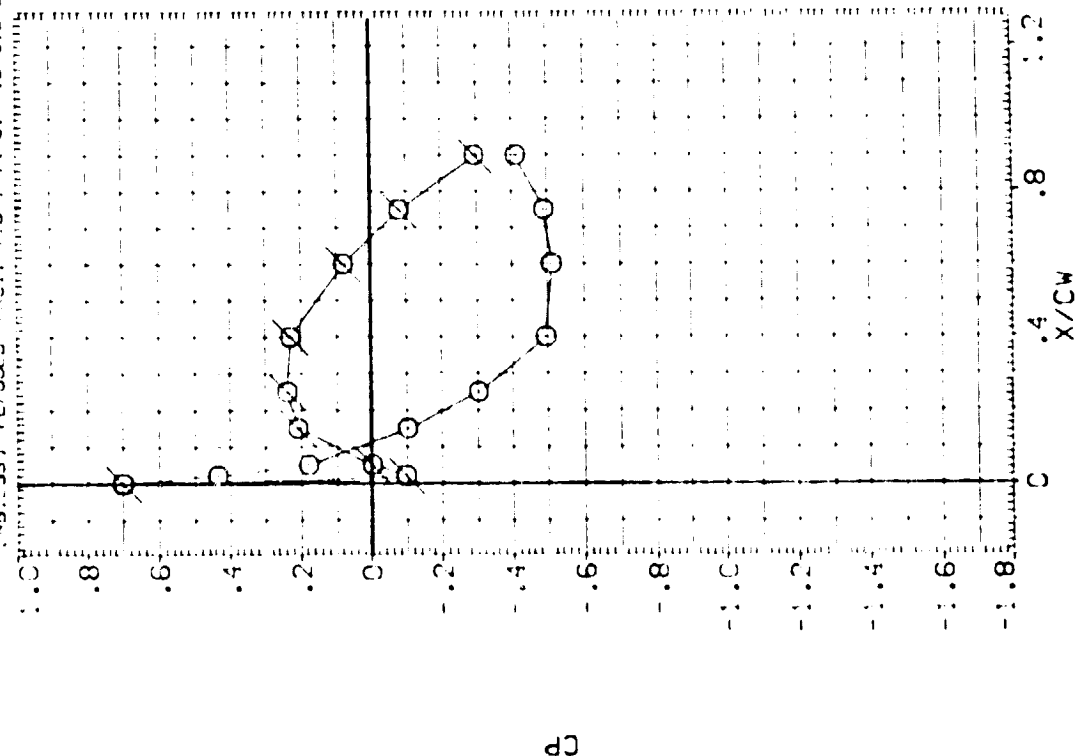
# CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

SYMBOL  $\bigcirc$  ALPHA0 -1.760 Y/BV .673 BETA0 -8.420  
 MACH .000 RUDDER .000  
 PARAMETRIC VALUES  
 1.250 ELEVON .000  
 .000 SPOBRK .000



SYMBOL ALPHA0 1/B<sub>0</sub> BETA0  
 0 -1.760 .887 -8.420

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (99) (33) OPEN ARC11-716 1A 4 01 112-512-25-AT10 UPPER WING  
 (99) (33) FLASCO ARC11-716 1A 4 01 112-512-25-AT10 LOWER WING

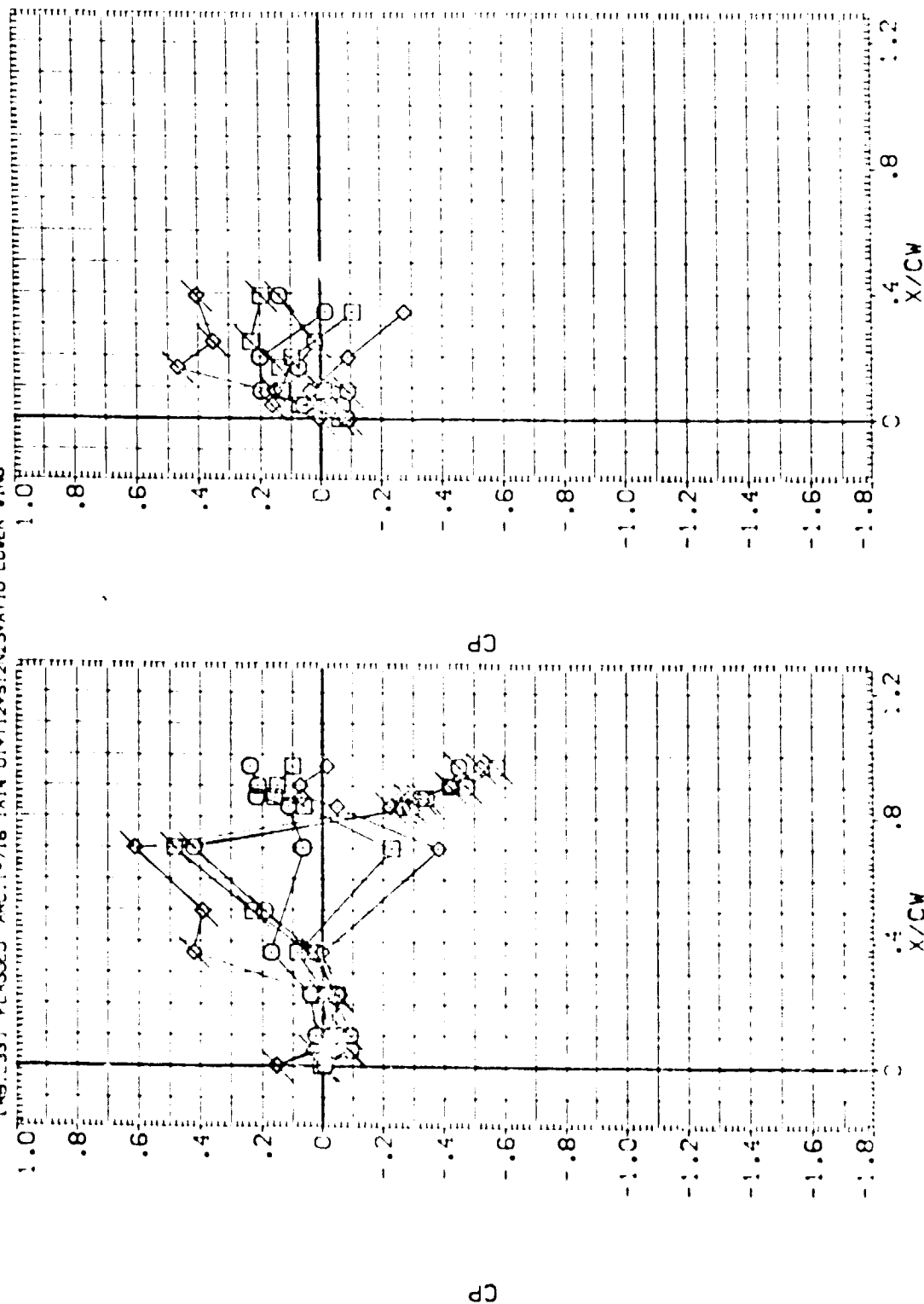


CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

PARAMETRIC VALUES  
 MACH 1.250 ELEVON .000  
 RUDDER .000 SPOILER .000

SYMBOL ALPHA0 Y/B0 BETA0  
 O -8.220 .299 -7.920  
 X -4.200 .364  
 X 4.300

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R8) (33) OPEN ARC: 11-716 [A] 4 01-112-S12-25+AT10 UPPER WING  
 (R8) (33) FLAGGED ARC: 11-716 [A] 4 01-112-S12-25+AT10 LOWER WING

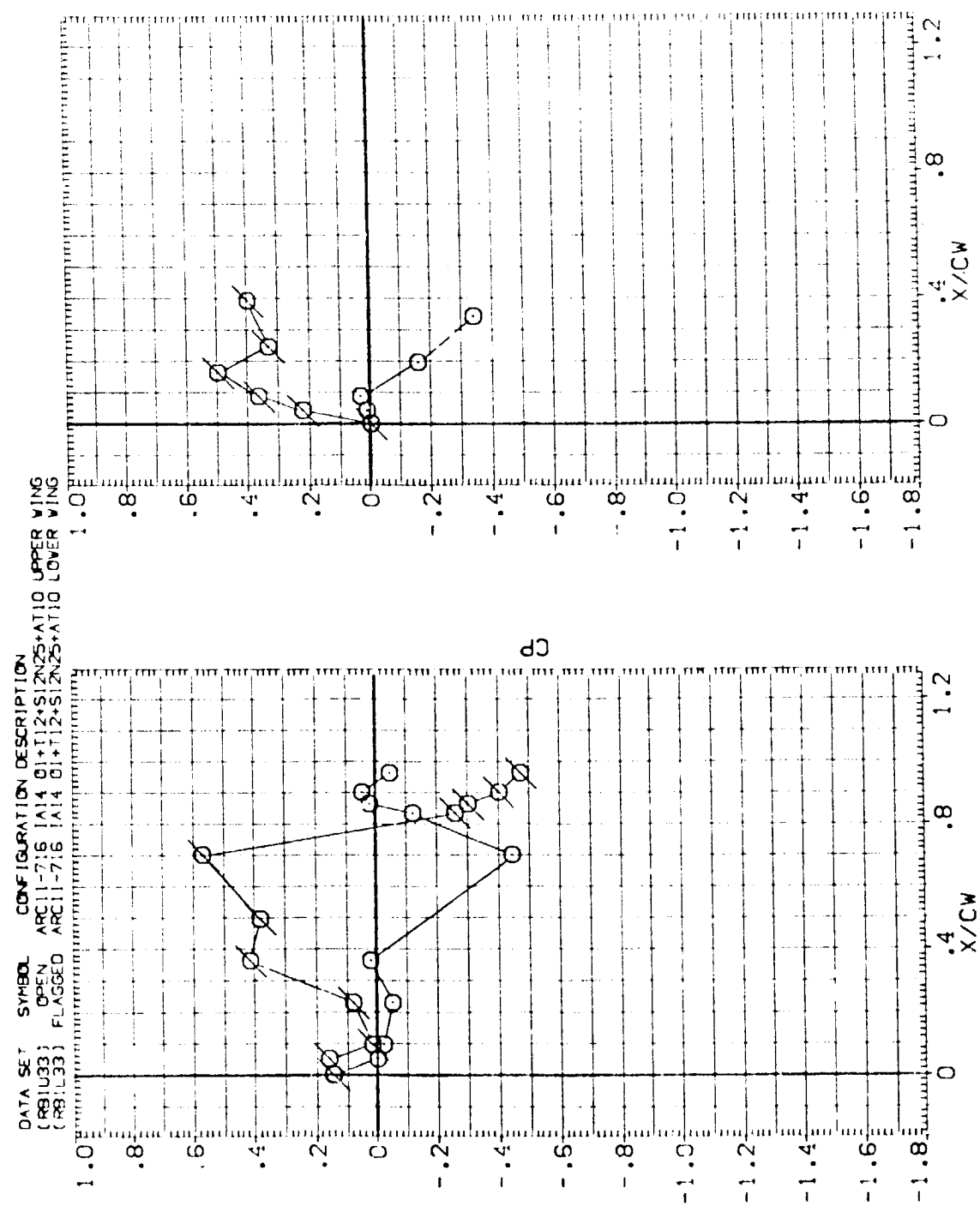


CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

PARAMETRIC VALUES  
 1.250 ELEVON  
 .000 SPOILER

MACH  
 RUDDER

SYMBOL ALPHA Y/BV BETA  
 O 7.910 .299 -7.920  
 .364

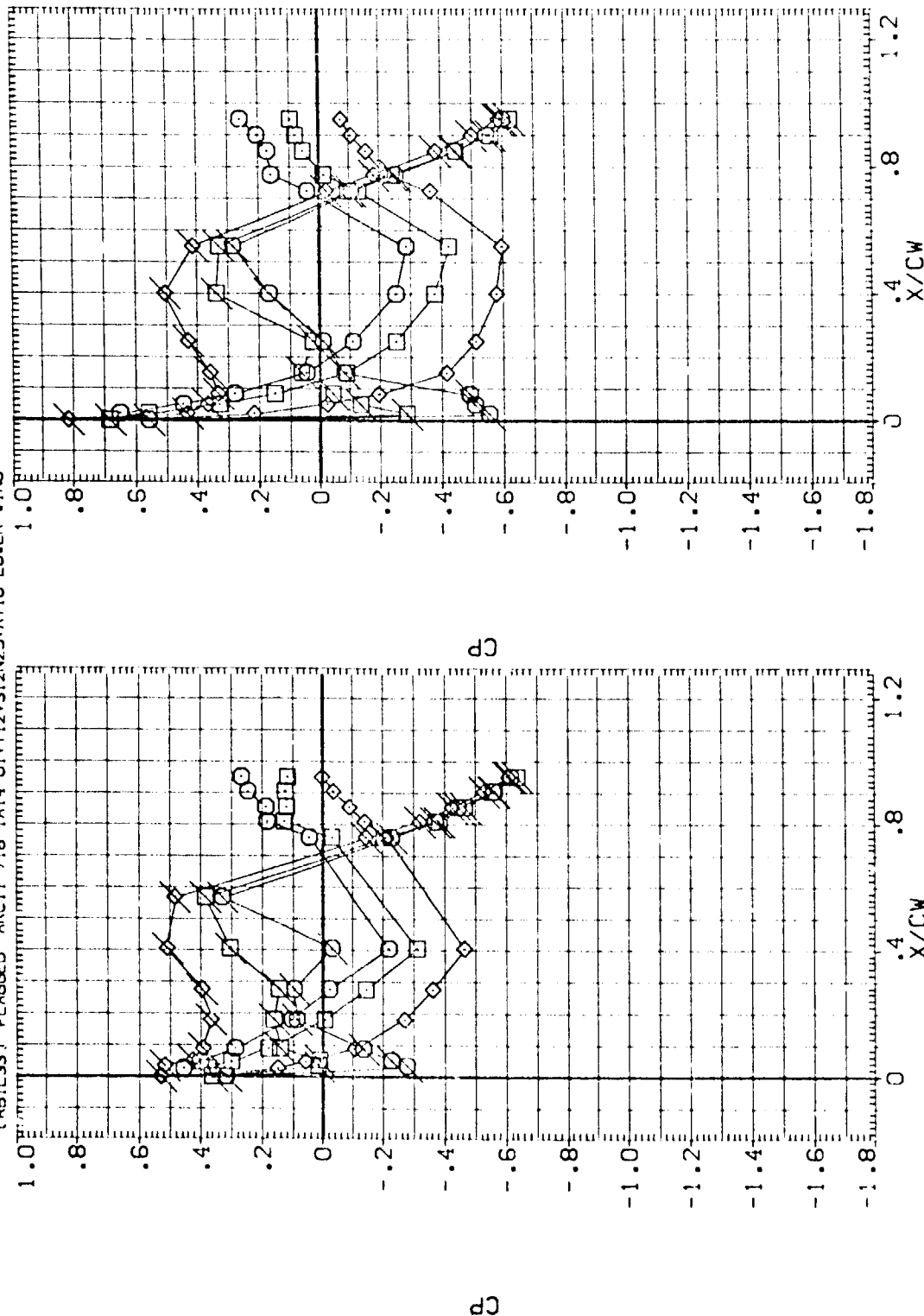


CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

PARAMETRIC VALUES  
MACH 1.250 ELEVON .000  
RUDDER .000 SPOBRK .000

SYMBOL ALPHA0 Y/BV BETA0  
-8.220 .427 -7.920  
-4.200 .534  
4.300

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
(R81U33) OPEN ARC11-716 1A14 01+112+512N25+AT10 UPPER WING  
(R81L33) FLAGGED ARC11-716 1A14 01+112+512N25+AT10 LOWER WING



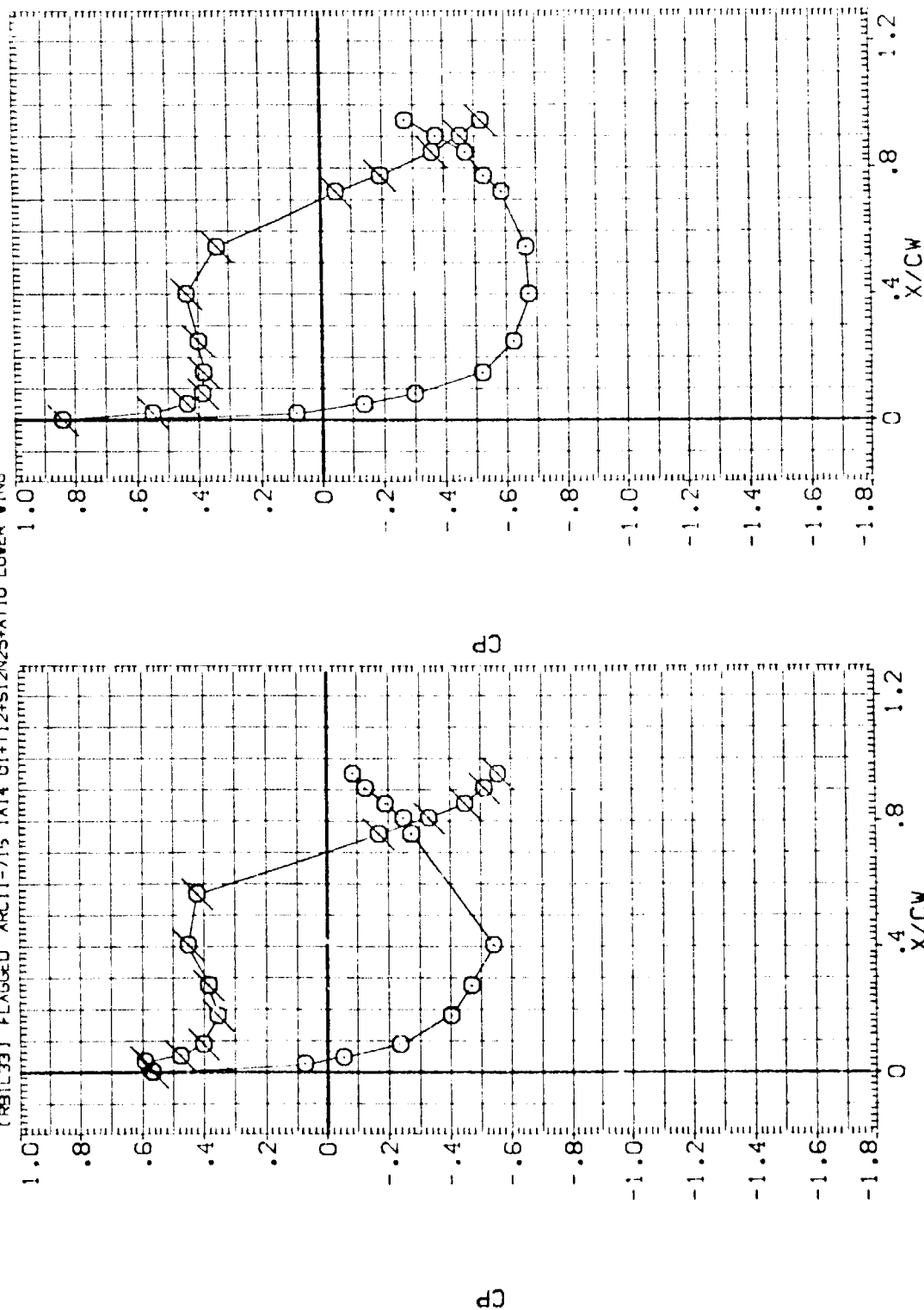
CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES



PARAMETRIC VALUES  
 MACH 1.250 ELEVON .000  
 RUDDER .000 SPOBRK .000

SYMBOL ALPHA0 Y/BV BETA0  
 O 7.910 .427 -7.920  
 .534

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RB11J33) OPEN ARC11-716 A14 01+T12+S12N25+AT10 UPPER WING  
 (RB11J33) FLAGGED ARC11-715 A14 01+T12+S12N25+AT10 LOWER WING

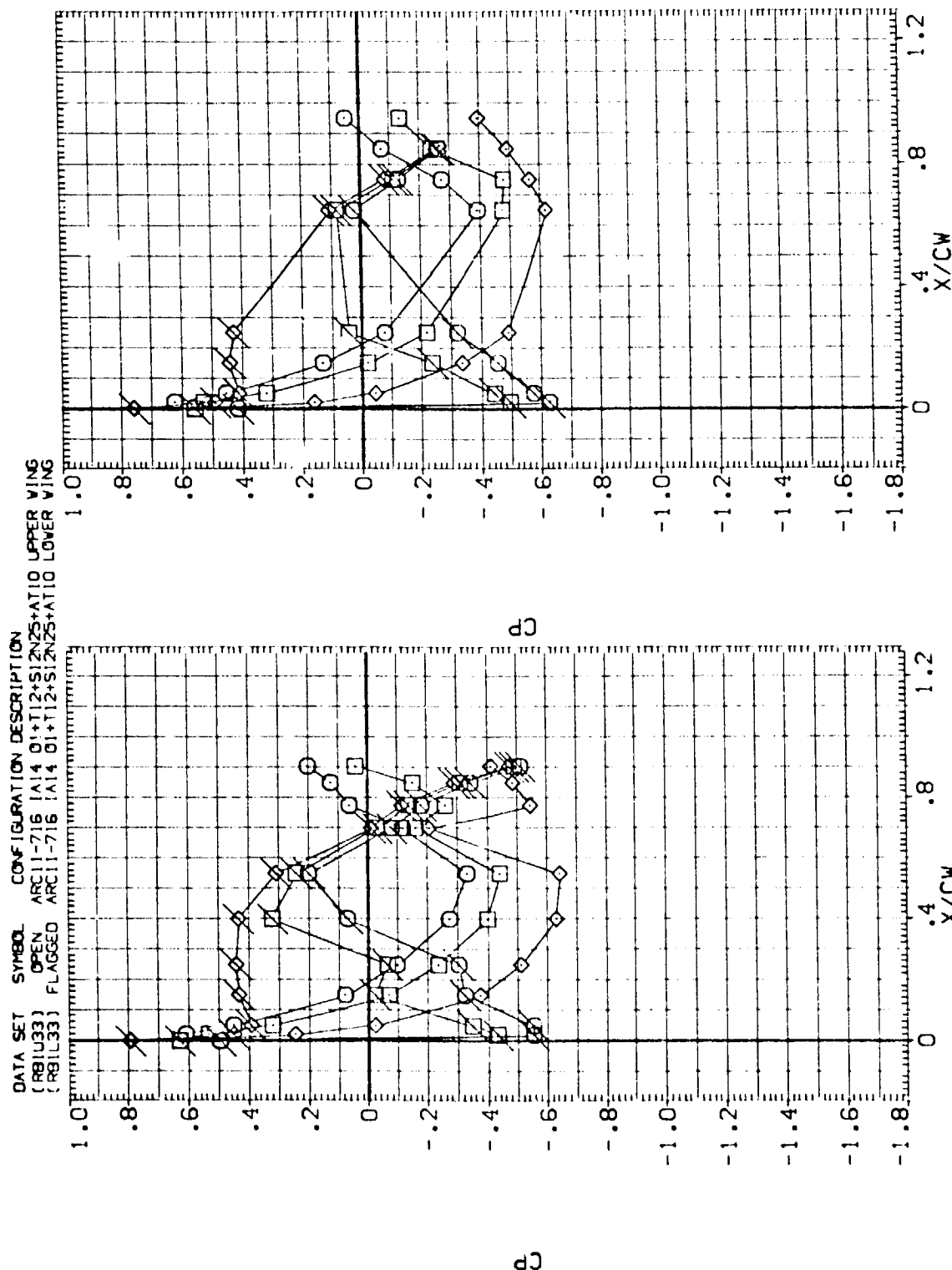


CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

PARAMETRIC VALUES  
 1.250 ELEVON  
 .000 SPOBRK

MACH  
 RUDDER

SYMBOL ALPHA Y/BV BETA  
 -8.220 .673 -7.920  
 -4.200 .780  
 4.300



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

SYMBOL ALPHA

Y/BV BETA

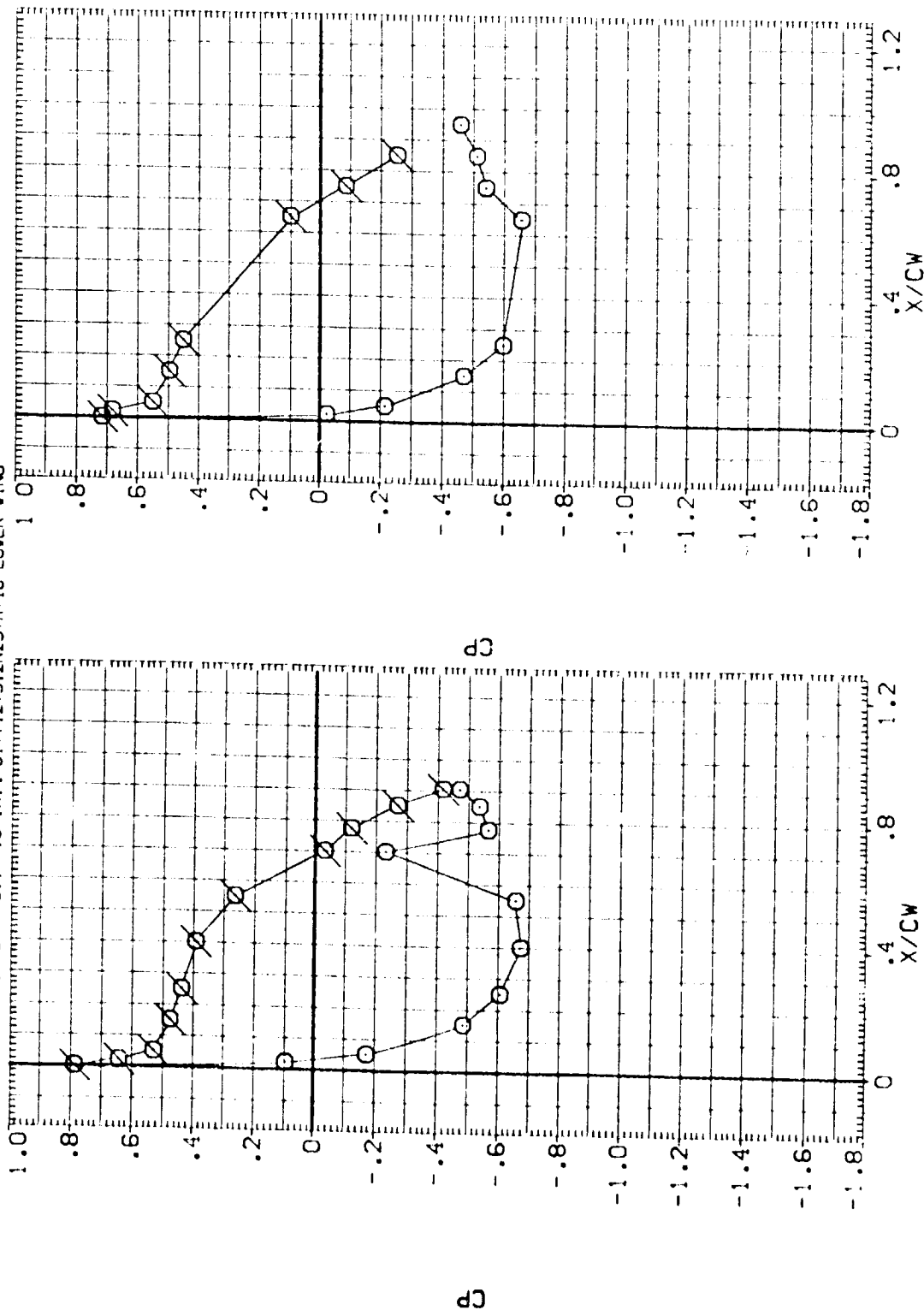
MACH RUDDER

PARAMETRIC VALUES

1.250 ELEVON

.000 SPOBRK

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
(R81U33) OPEN ARC11-716 1/14 01+T12+S12N25+AT10 UPPER WING  
(R81L33) FLAGGED ARC11-716 1/14 01+T12+S12N25+AT10 LOWER WING

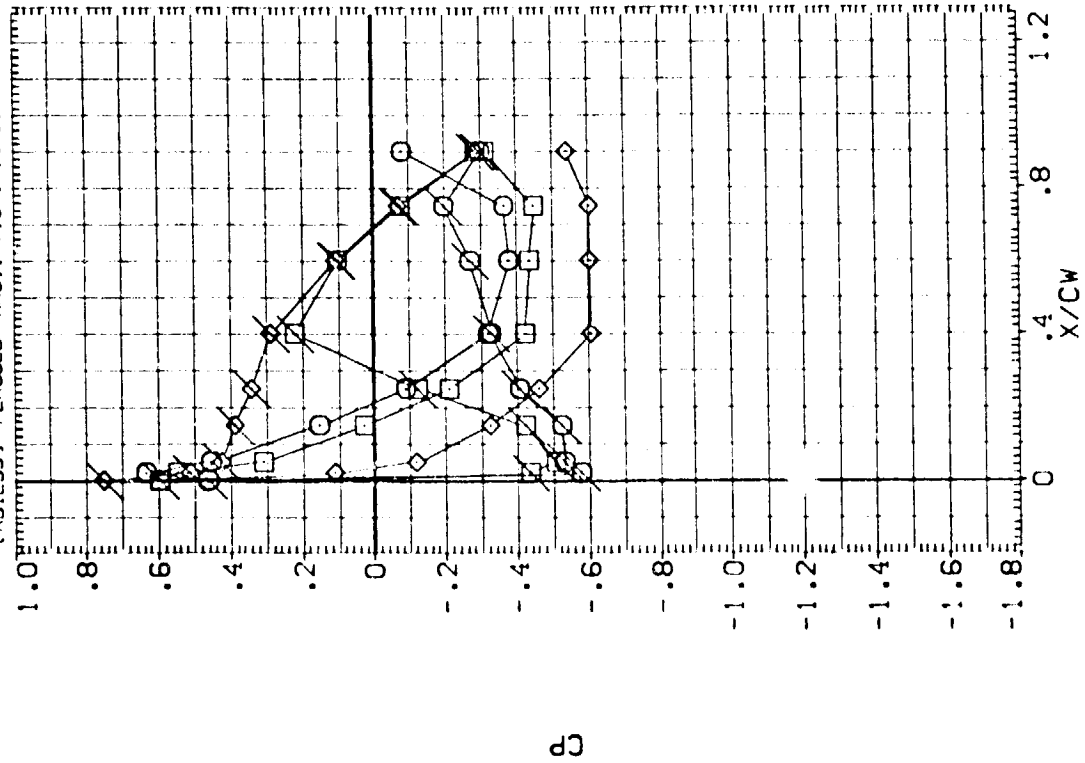


CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

PARAMETRIC VALUES  
 MACH 1.250  
 ELEVON .000  
 RUDDER .000

SYMBOL ALPHA<sub>W</sub> Y/BV BETA<sub>W</sub>  
 O -8.220 .887 -7.920  
 [ -4.200  
 ◇ 4.300

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R81U33) OPEN ARC11-716 1A14 01+112+S12N25+AT10 UPPER WING  
 (R81L33) FLAGGED ARC11-716 1A14 01+112+S12N25+AT10 LOWER WING

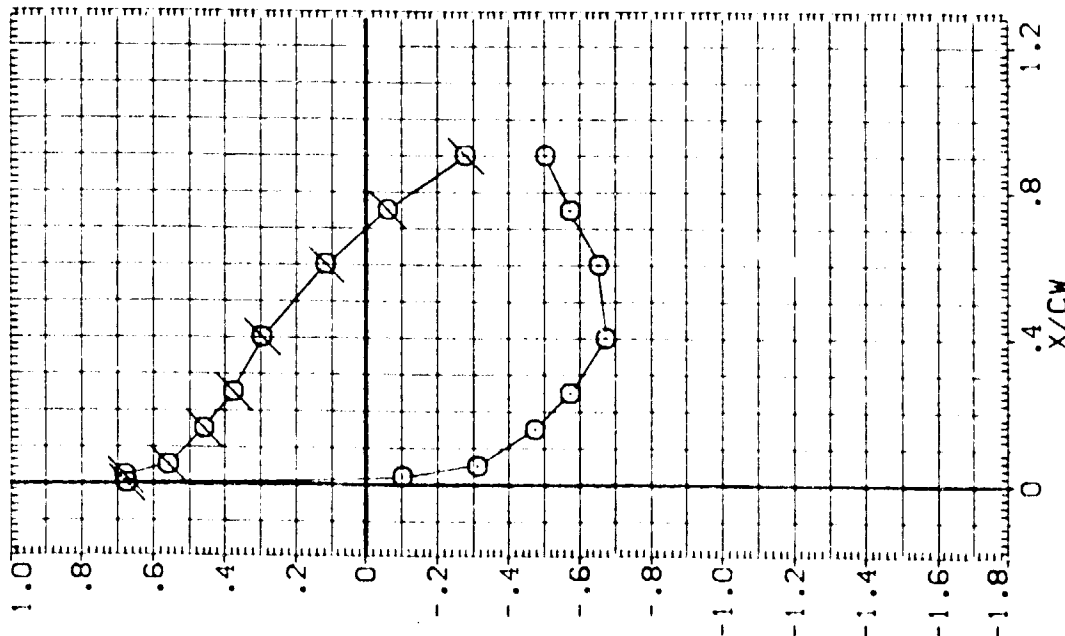


CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

PARAMETRIC VALUES  
 MACH 1.250 ELEVON .000  
 RUDDER .000

SYMBOL ALPHA Y/BV BETA  
 O 7.910 .887 -7.920

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R81U33) OPEN ARC11-716 [A14 01+112+512N25+AT10 UPPER WING  
 (R81L33) FLAGGED ARC11-716 [A14 01+112+512N25+AT10 LOWER WING



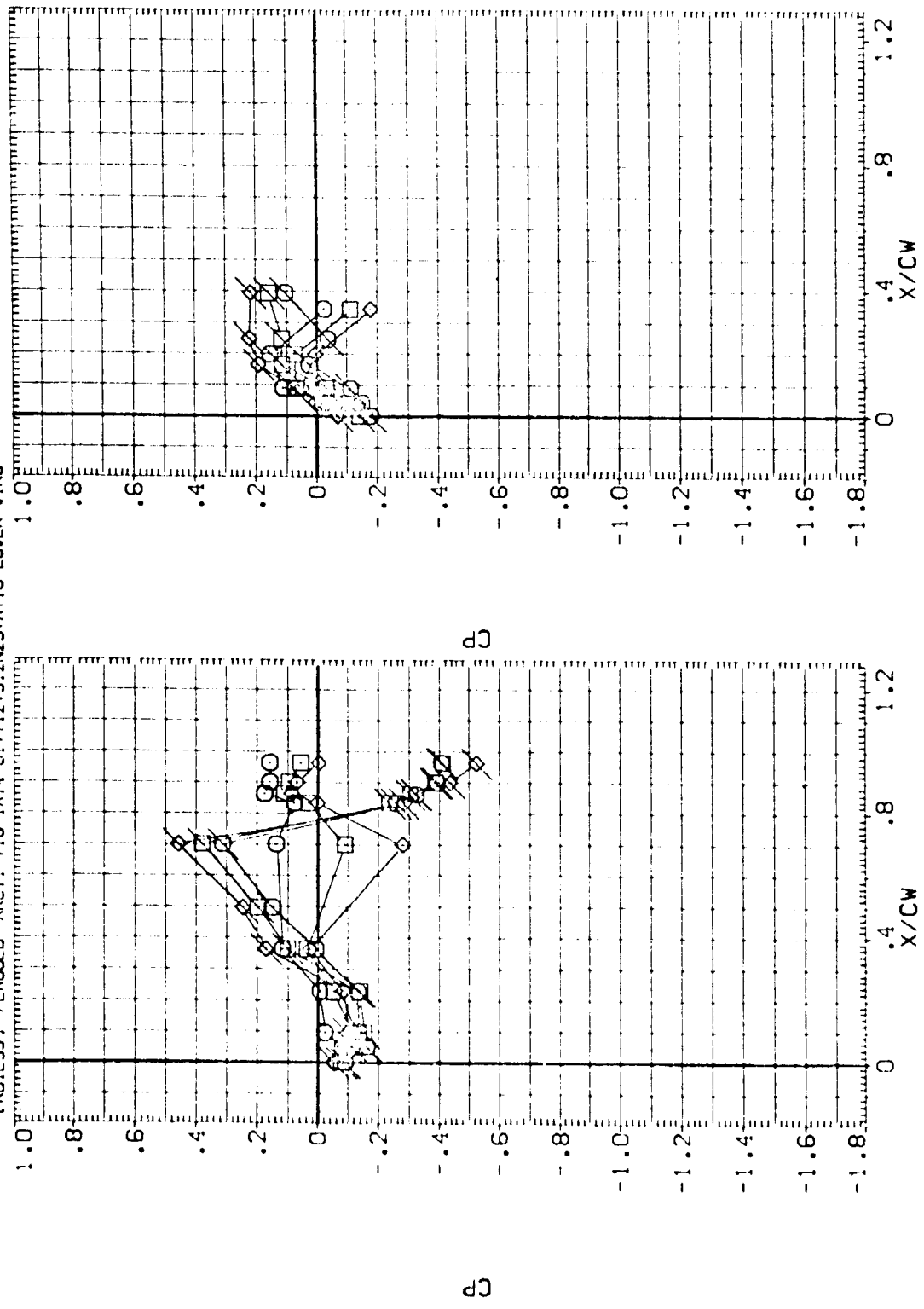
CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

PARAMETRIC VALUES  
 MACH 1.250  
 RUDDER .000  
 ELEVON .000  
 SPOBRK .000

ALPHA -8.220  
 Y/BV .299  
 BETA0 -3.960

SYMBOL  
 ○ OPEN  
 □ FLAGGED  
 ◇

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RB1U33) OPEN ARC11-716 1A14 01+T12+S12N25+AT10 UPPER WING  
 (RB1U33) FLAGGED ARC11-716 1A14 01+T12+S12N25+AT10 LOWER WING

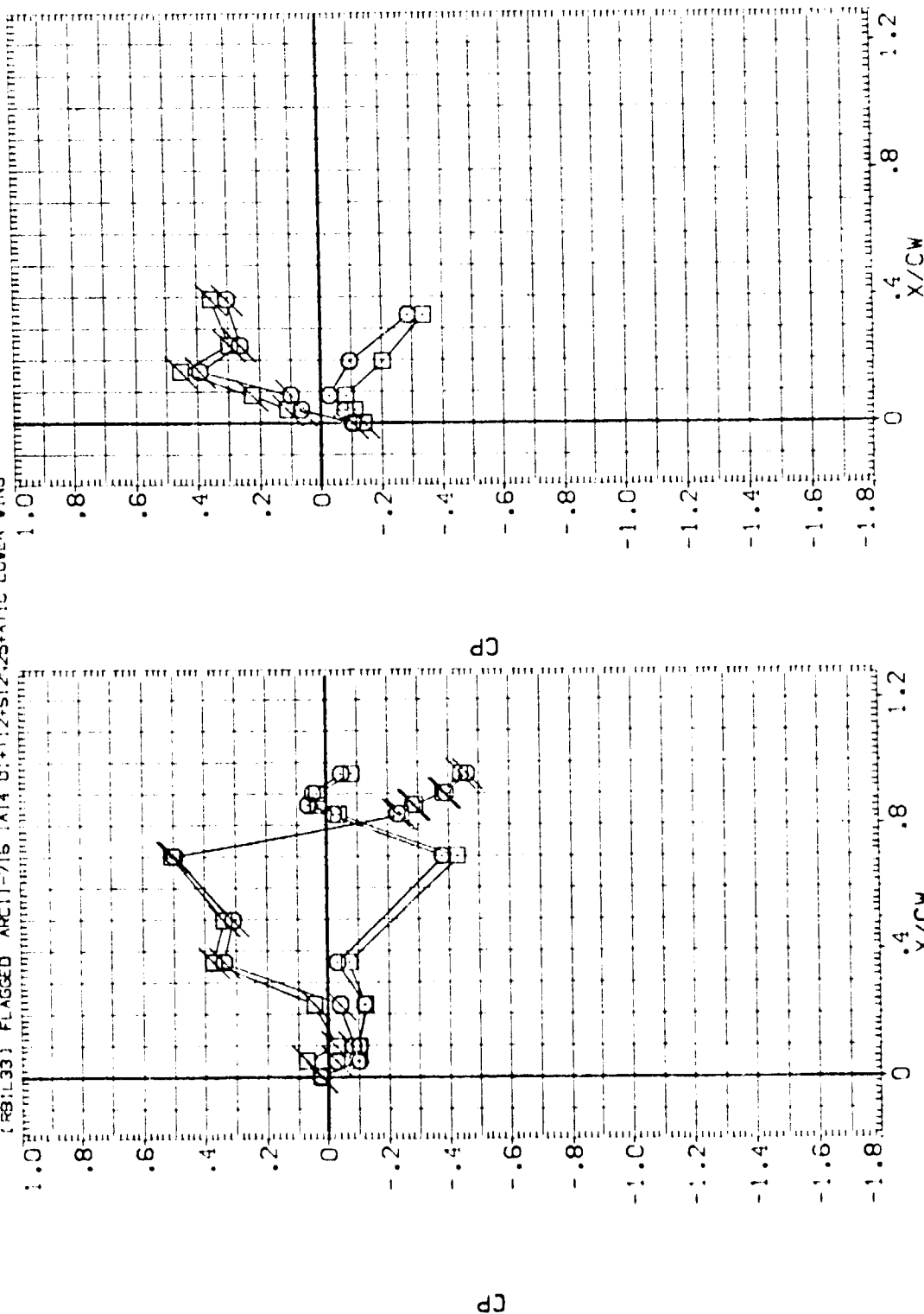


CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

PARAMETRIC VALUES  
 MACH 1.250 ELEVON .000  
 RUDDER .000

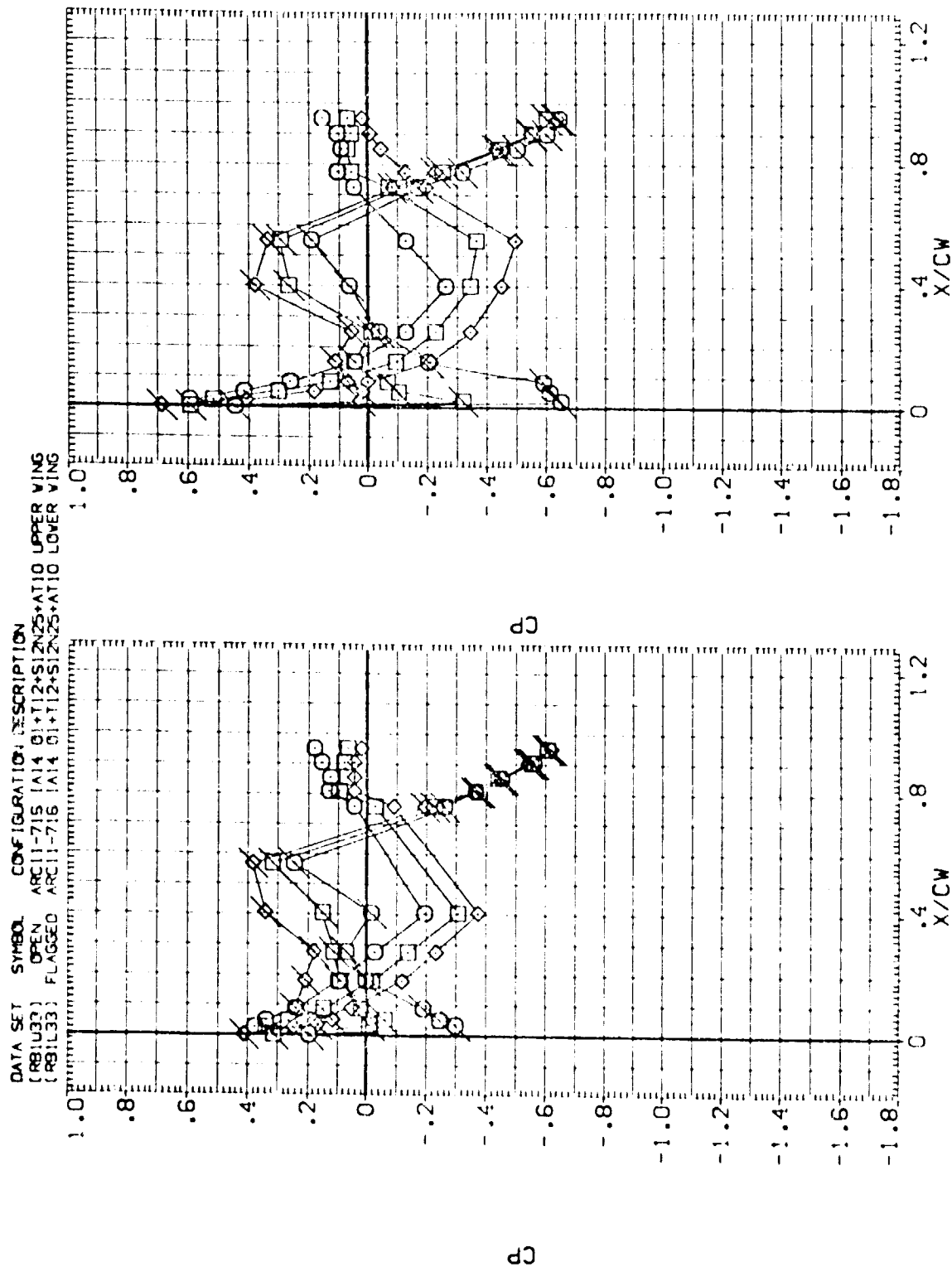
SYMBOL ALPHA0 Y/BV BETA0  
 4.300 .299 -3.960  
 7.910 .364

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R81U33) OPEN ARC11-716 [A14 Q1+T12+S12+25+ATIO UPPER WING  
 (R81U33) FLAGGED ARC11-716 [A14 Q1+T12+S12+25+ATIO LOWER WING



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

SYMBOL	ALPHA0	Y/BV	BETA0	MACH	PARAMETRIC VALUES
○	-8.220	.427	-3.960	RUDDER	1.250 ELEVON
◇	-4.200	.534			.000 SPOBRK
					.000



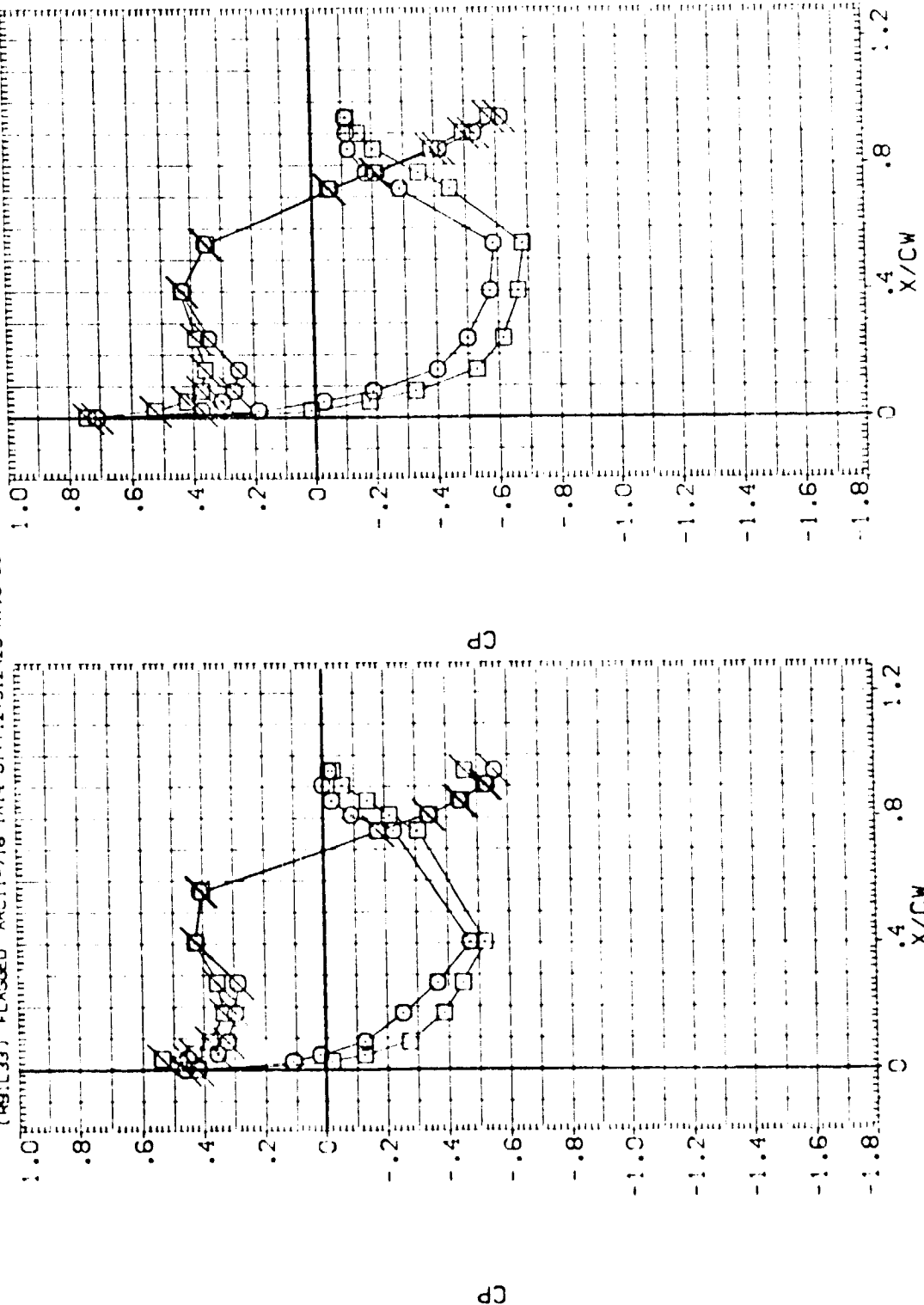
CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES



PARAMETRIC VALUES  
 MACH 1.250  
 ELEVON .000  
 RUDDER .000

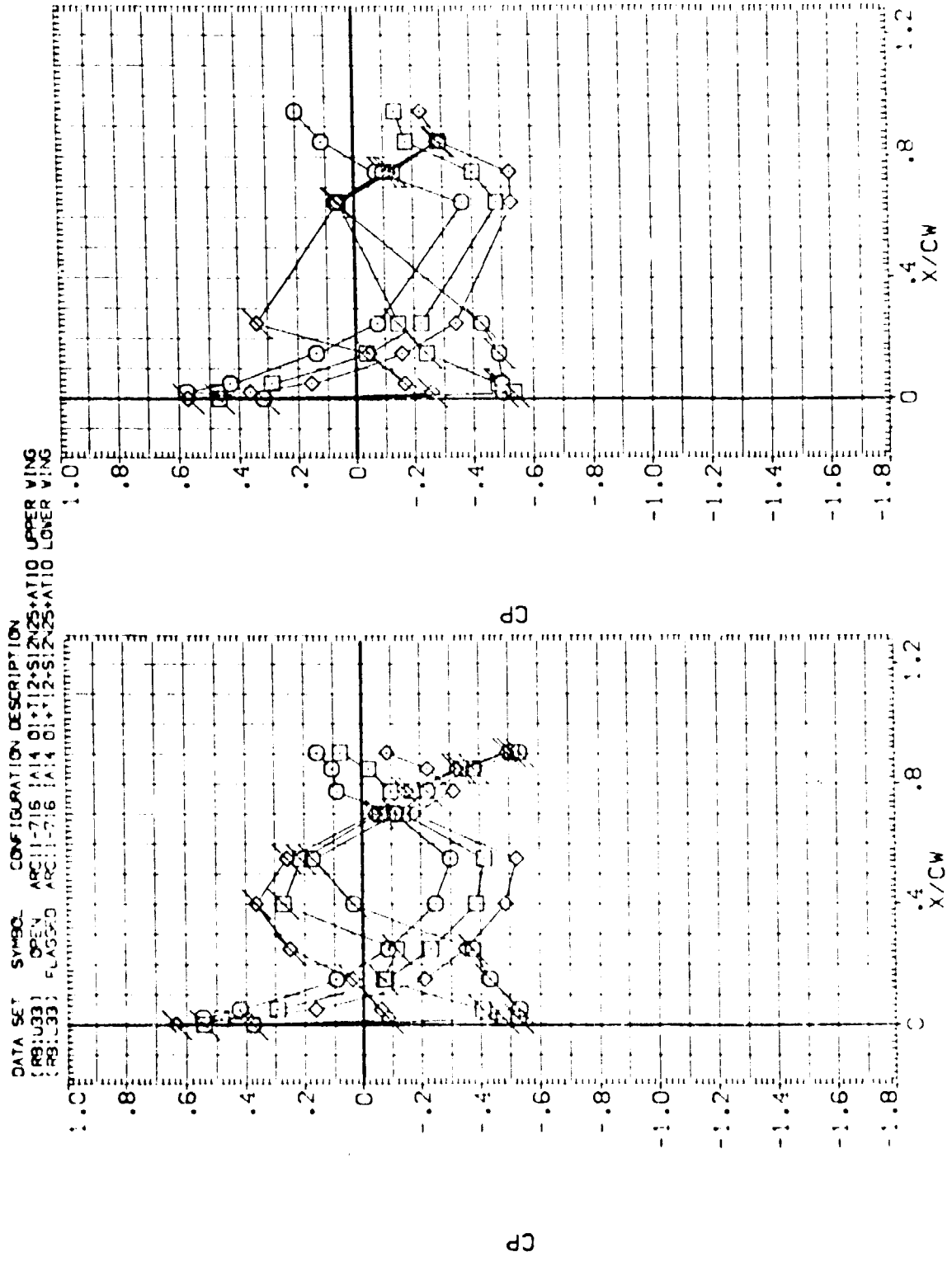
ALPHA 4.300  
 Y/BV .427  
 BETA -3.950  
 7.910 .534

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RB1U33) OPEN ARC11-716 [A14 01+T12+S12+25+AT10] UPPER WING  
 (RB1L33) FLAGGED ARC11-716 [A14 01+T12+S12+25+AT10] LOWER WING



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

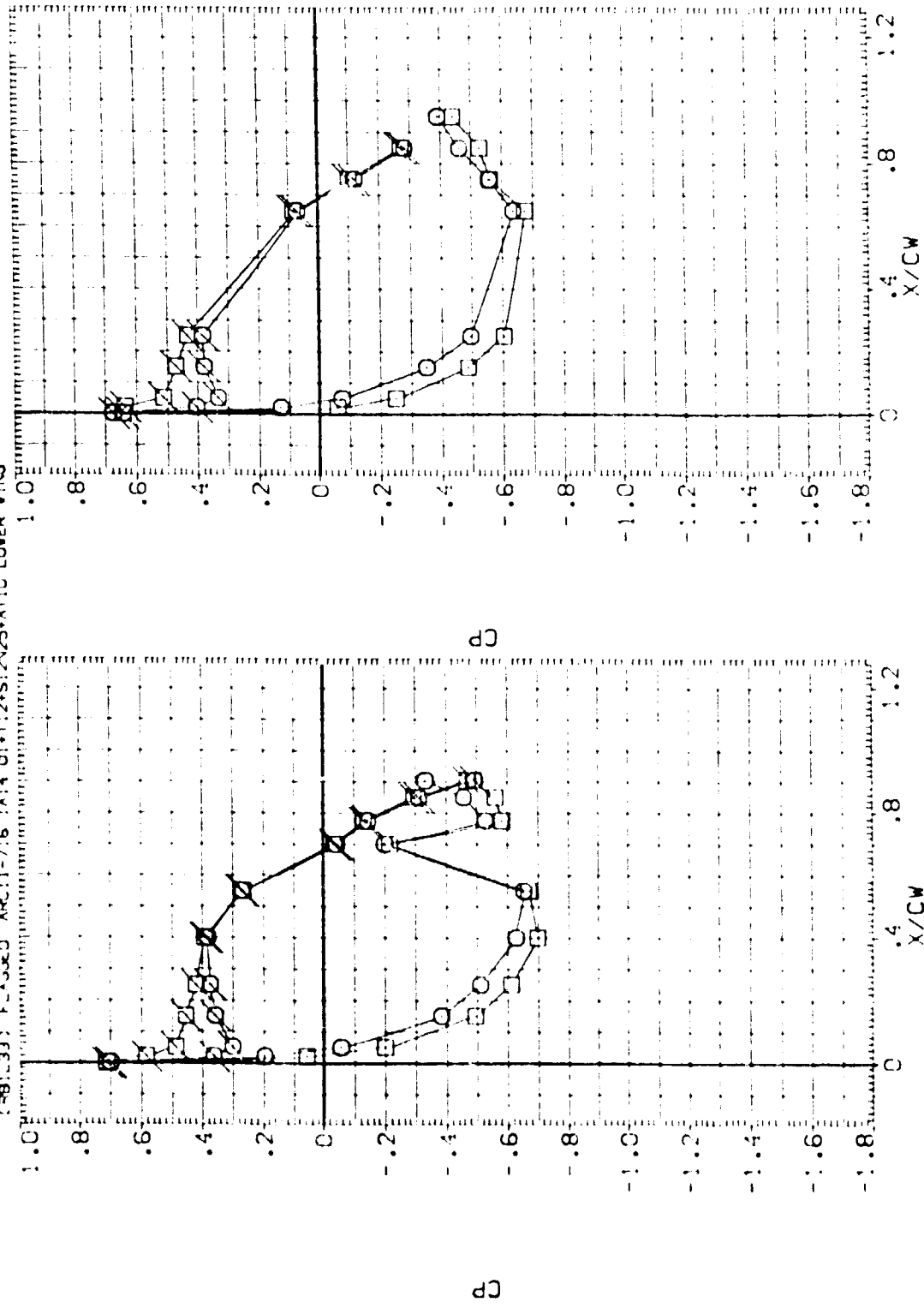
SYMBOL	ALPHA	Y/BV	BETA	MACH	PARAMETRIC VALUES
○	-8.220	.573	-3.960	RUDDER	1.250 ELEVON
◇	-4.200	.780			.000 SPOILER
					.000



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

SYMBOL ALPHA  $\beta$  Y/BV BETAD  
 1.0 4.000 .673 -3.960  
 1.1 7.910 .780

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R9) (U33) OPEN ARC 11-716 [A] 4 01-112+S 2+25+AT10 UPPER WING  
 (R8) (L33) FLAISED ARC 11-716 [A] 4 01-112+S 2+25+AT10 LOWER WING



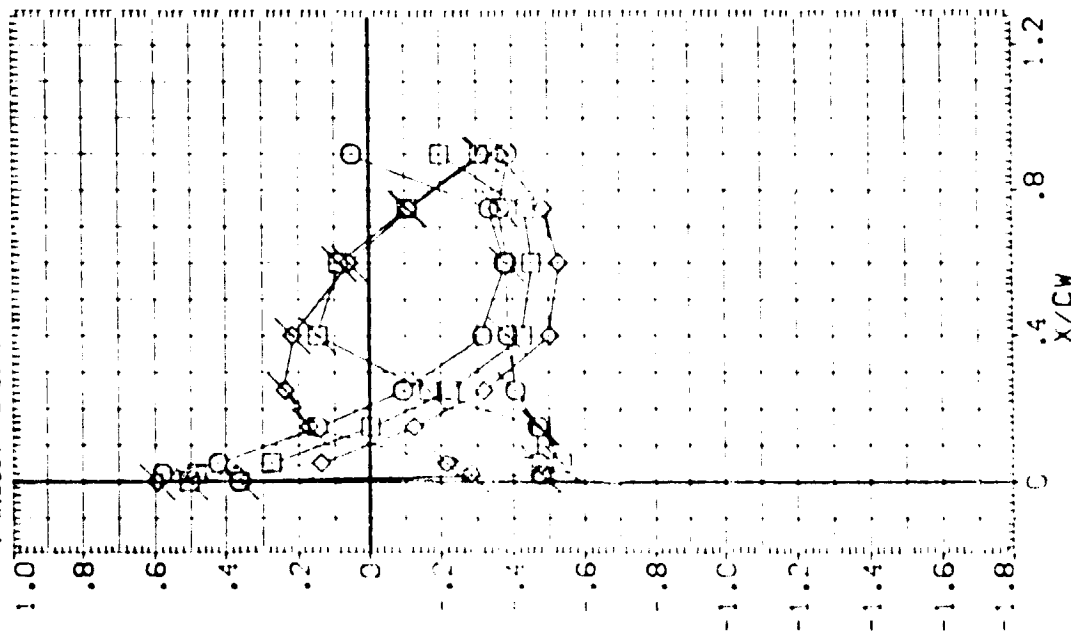
CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

PARAMETRIC VALUES  
 1.250 ELEVON  
 .000 SPDBRK  
 .000

MACH  
 RUDDER

SYMBOL ALPHA3 Y/BV BETAS  
 -0.220 .887 -3.960  
 -4.200  
 -1.760

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RB1033) OPEN ARC11-716 [A14 G1+T12+SIZE25+ATIO UPPER WING  
 (RB1133) FLAGGED ARC11-716 [A14 G1+T12+SIZE25+ATIO LOWER WING



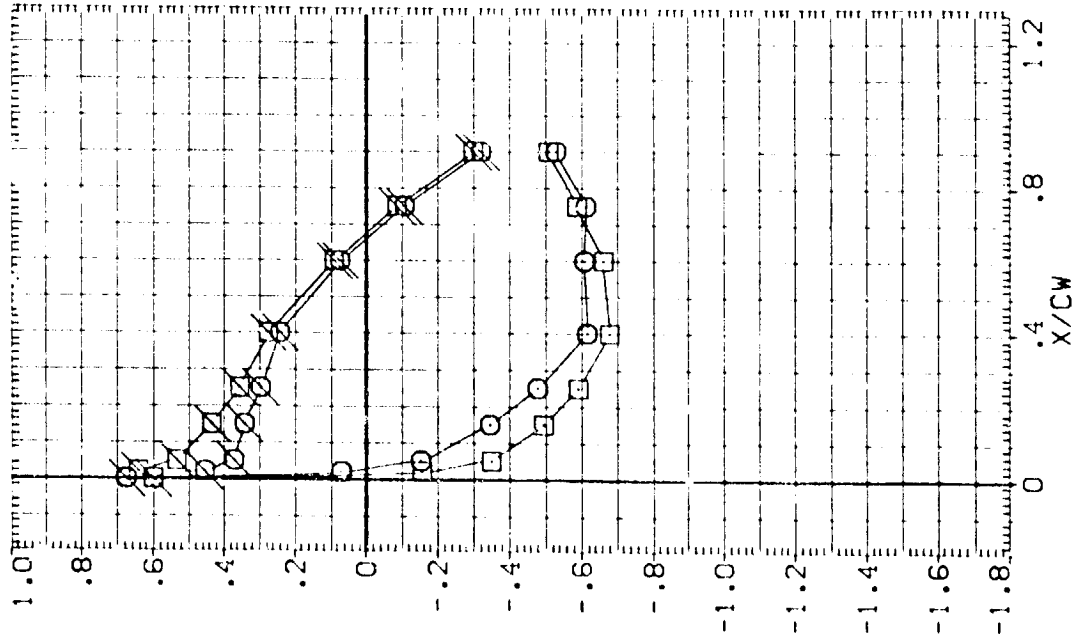
CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

PARAMETRIC VALUES  
 1.250 ELEVON  
 .000 SPDBRK  
 .000

MACH  
 RUOVER

SYMBOL ALPHA0 Y/BV BETA0  
 4.300 .887 -3.960  
 7.810

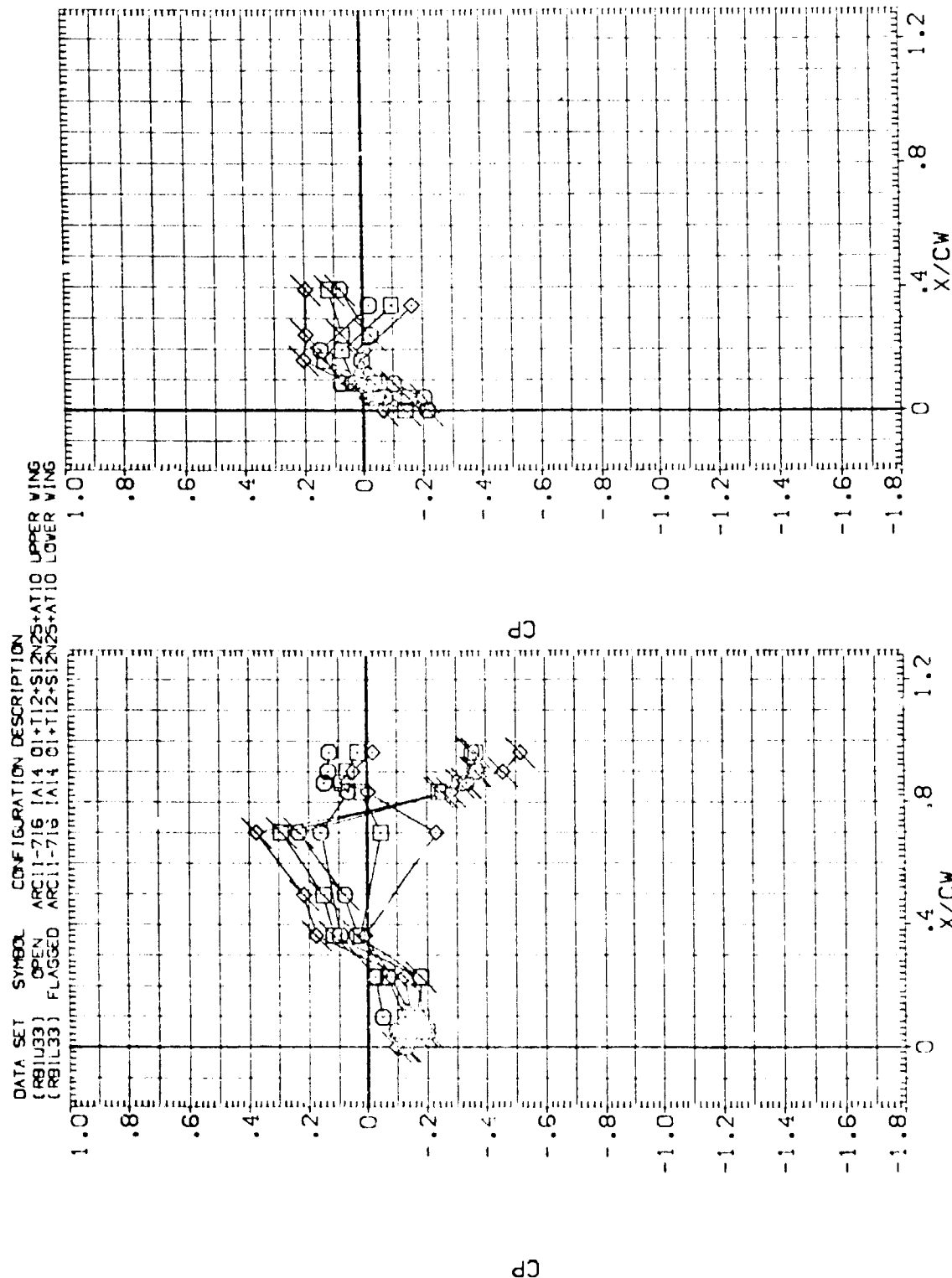
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R81U33) OPEN ARC11-716 1A14 01+112-S12N25+AT10 UPPER WING  
 (R81U33) FLAGGED ARC11-716 1A14 01+112-S12N25+AT10 LOWER WING



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

PARAMETRIC VALUES  
 MACH 1.250 ELEVON .000  
 RUDDER .000 SPOBRK .000

SYMBOL ALPHA0 Y/BV BETAI0  
 -8.220 .599 -1.970  
 -4.200 .364  
 -7.760

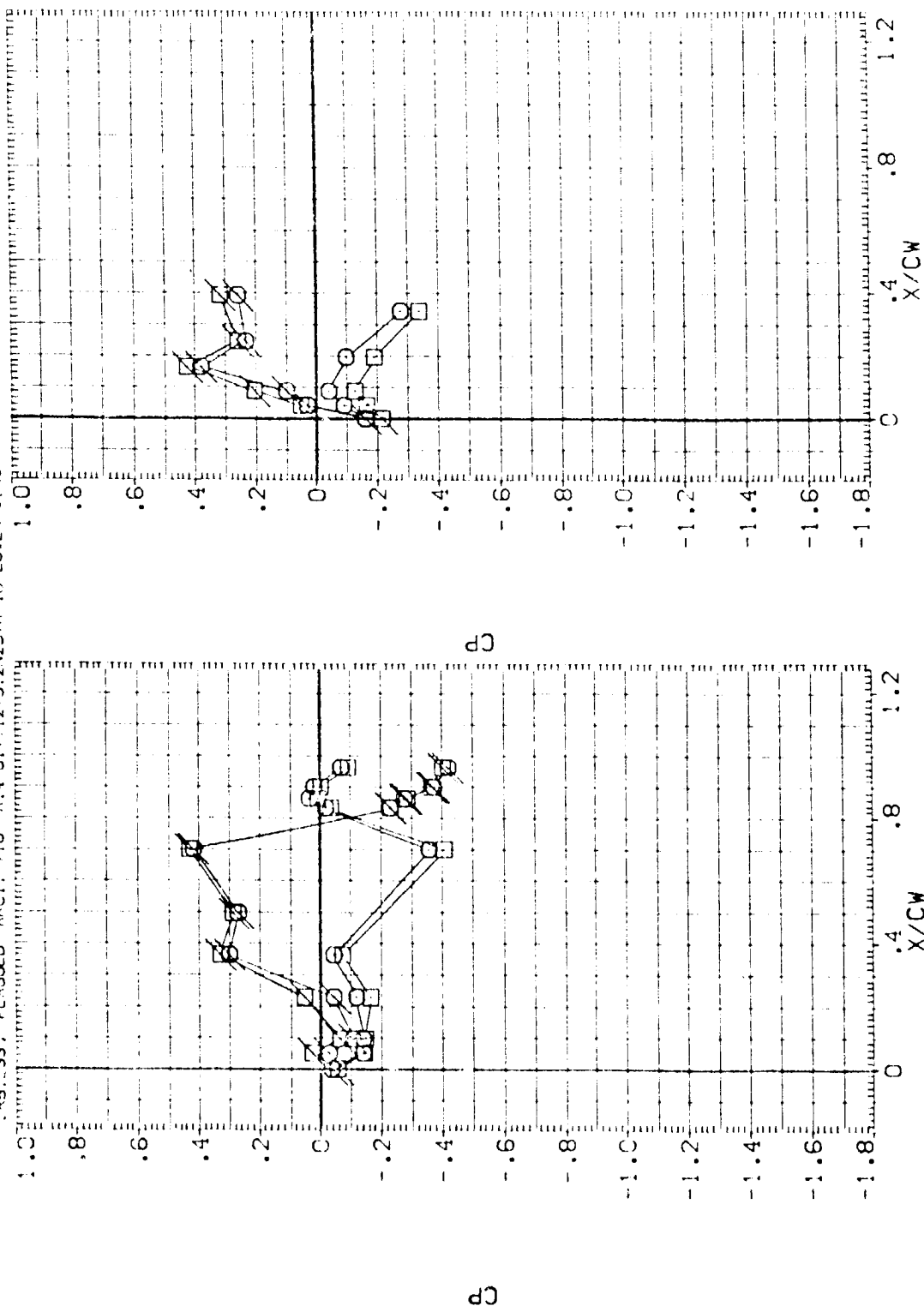


CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

PARAMETRIC VALUES  
 MACH 1.250 ELEVEN .000  
 RUDDER .000 SPEEDY .000

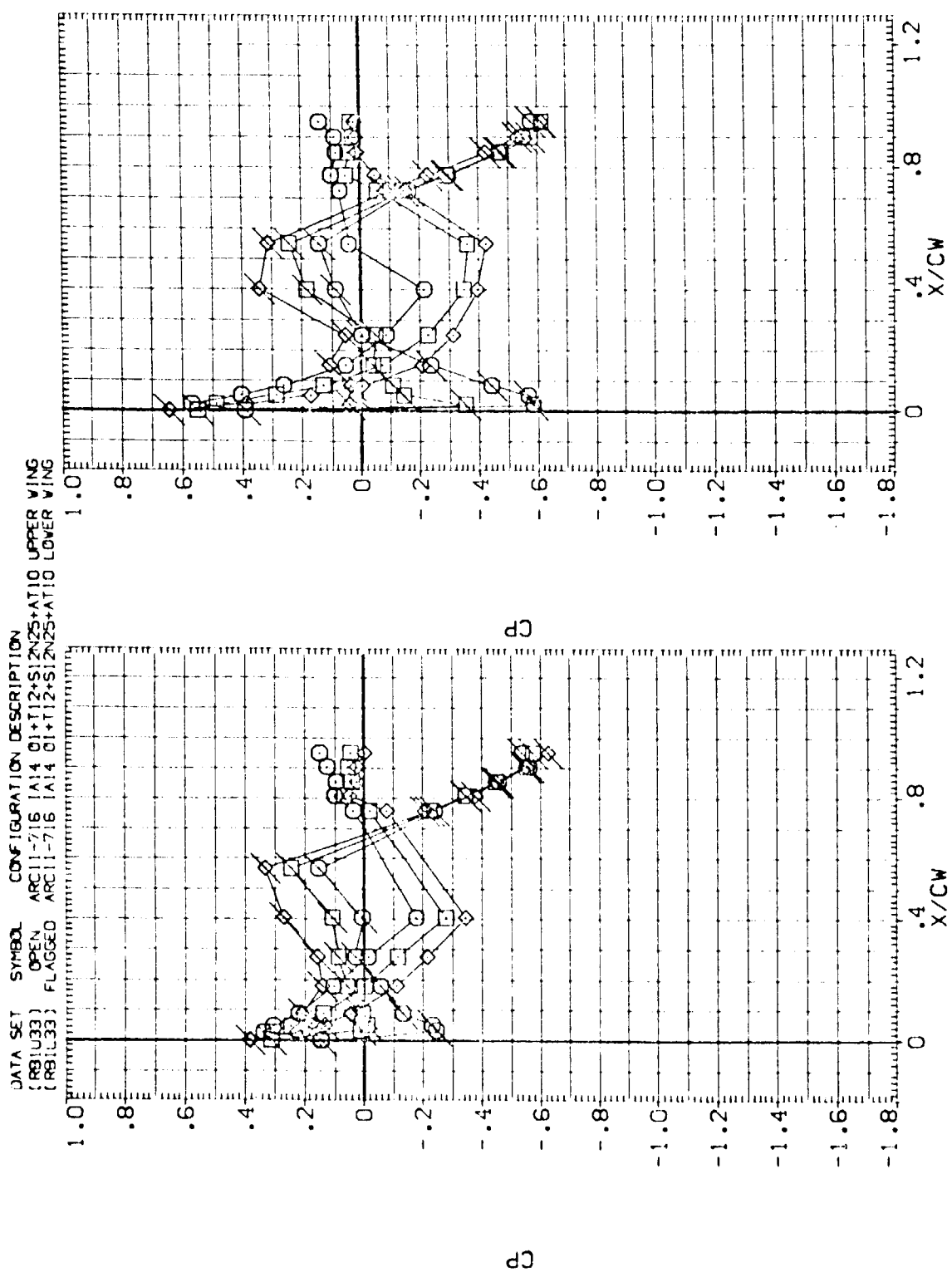
SYMBOL ALPHA0 Y/BV BETA0  
 4.300 .299 -1.970  
 7.910 .264

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (29:033) OPEN ARC11-716 1A14 01+112-S12N25+110 UPPER WING  
 (29:033) FLAGGED ARC11-716 1A14 01+112-S12N25+110 LOWER WING



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

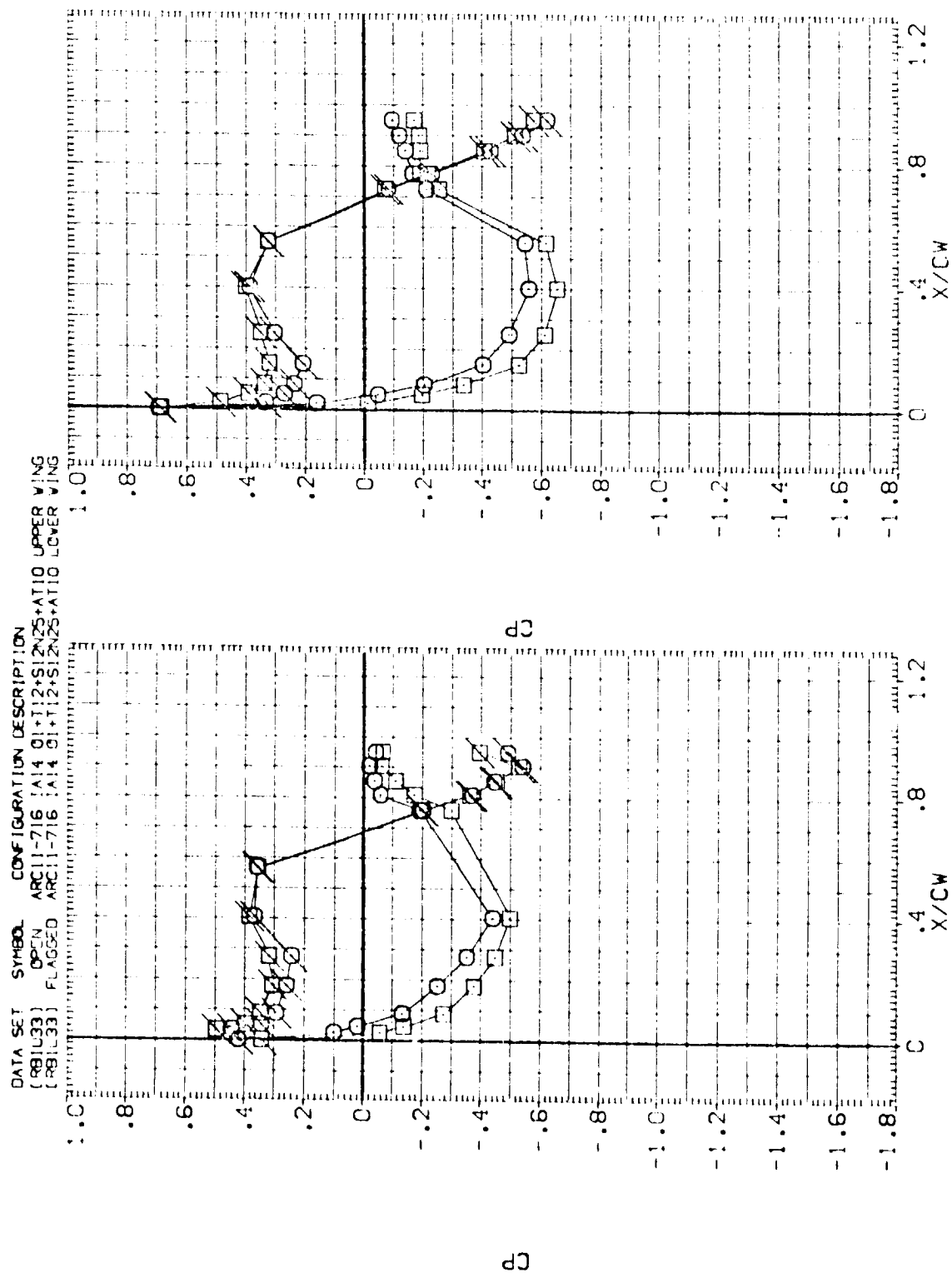
SYMBOL	ALPHA	Y/BV	BETA	MACH	PARAMETRIC VALUES
○	-8.220	.427	-1.970	RUDDER	1.250 ELEVON
□	-4.200	.534			.000 SPOBRK
◇	-.760				.000



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES



SYMBOL	ALPHA	Y/BV	BETA	PARAMETRIC VALUES
○	4.300	.427	-1.970	MACH 1.250 ELEVON .000
□	7.910	.534		RUDDER .000 SPOBRK .000



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

SYMBOL  
 ○ □ ◇

ALPHA  
 -8.220  
 -4.200  
 -1.760

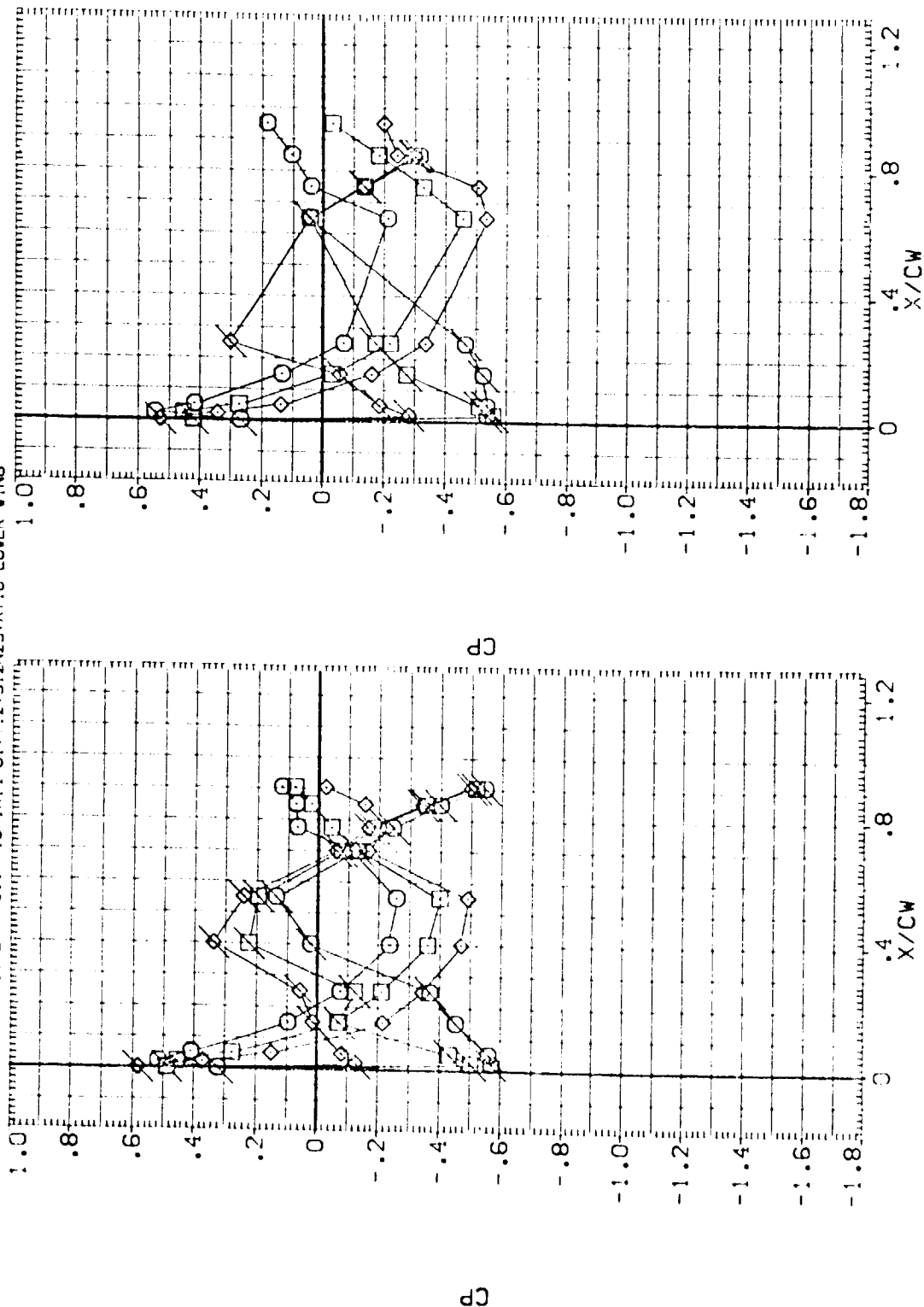
Y/BV  
 .673  
 .780

BETA  
 -1.970

MACH  
 RUDDER

PARAMETRIC VALUES  
 1.250 ELEVON  
 .000 SPOBRK  
 .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R8)U33 OPEN ARC11-716 1A14 01+T12-S12N25+AT10 UPPER WING  
 (R8)L33 FLAGGED ARC11-716 1A14 01+T12-S12N25+AT10 LOWER WING



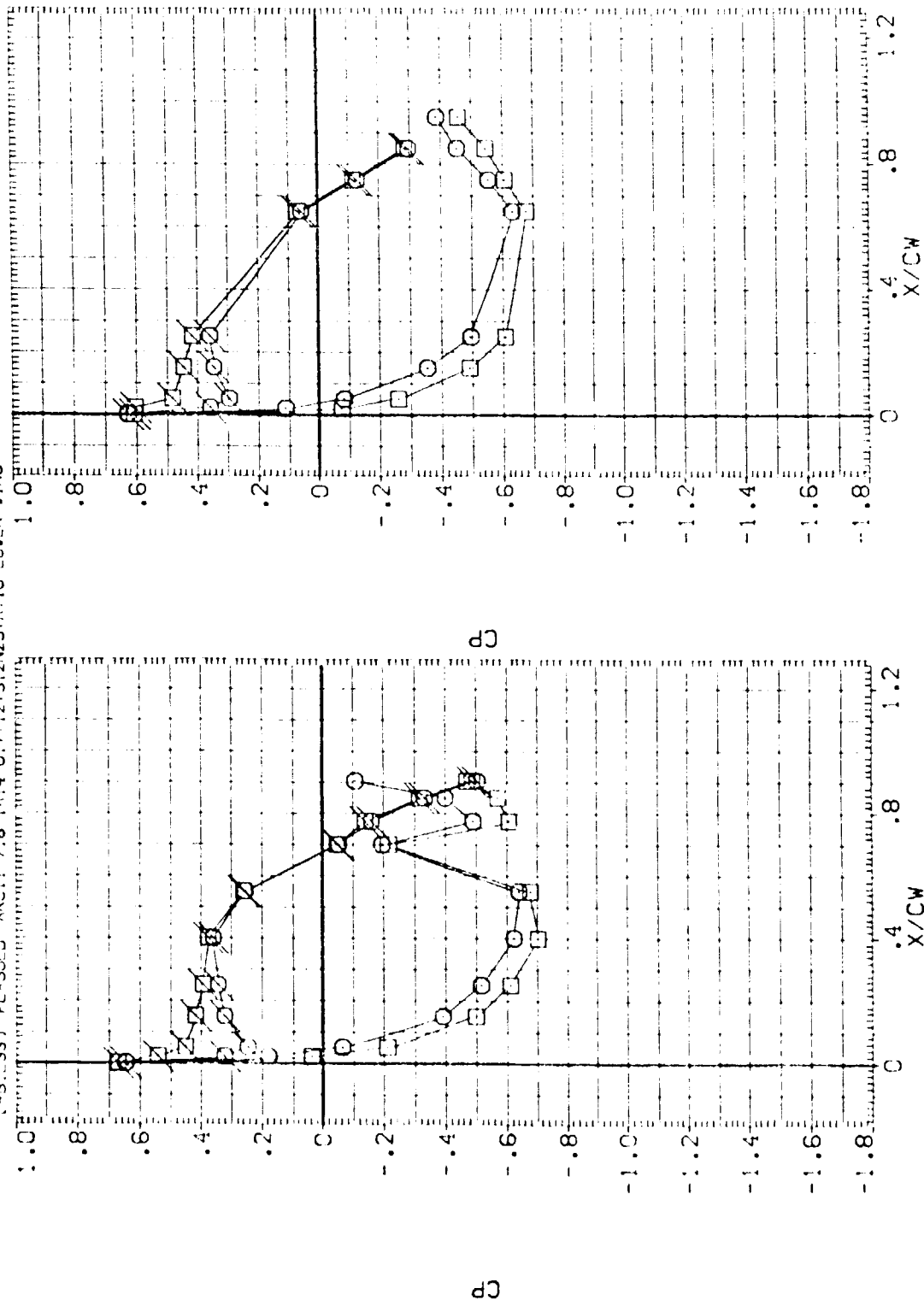
CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

PARAMETRIC VALUES:  
 1.250 ELEVON .000  
 .000 SPOBRK

MACH  
 RUDDER

SYMBOL ALPHA Y/BV BETA  
 1.300 .673 -1.970  
 7.910 .780

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R81133) OPEN ARC11-716 [A14 01+112+512+25+AT10 UPPER WING  
 (931133) FLAGGED ARC11-716 [A14 01+112+512+25+AT10 LOWER WING

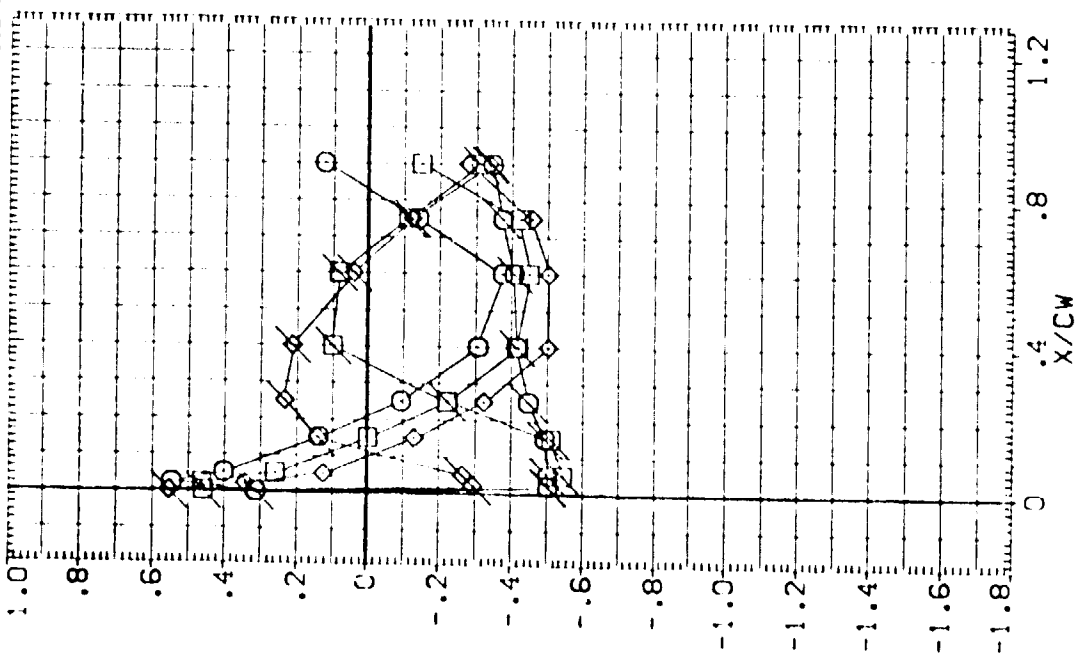


CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

SYMBOL ALPHA Y/BV BETA  
 -8.220 .887 -1.970  
 -4.200  
 -1.760

PARAMETRIC VALUES  
 MACH 1.250  
 RUDDER .000  
 ELEVON .000  
 SPOBRK .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R81033) OPEN ARC11-716 IAI4 01+T12+S12+Z5+AT10 UPPER WING  
 (R81033) FLASSED ARC11-716 IAI4 01+T12+S12+Z5+AT10 LOWER WING



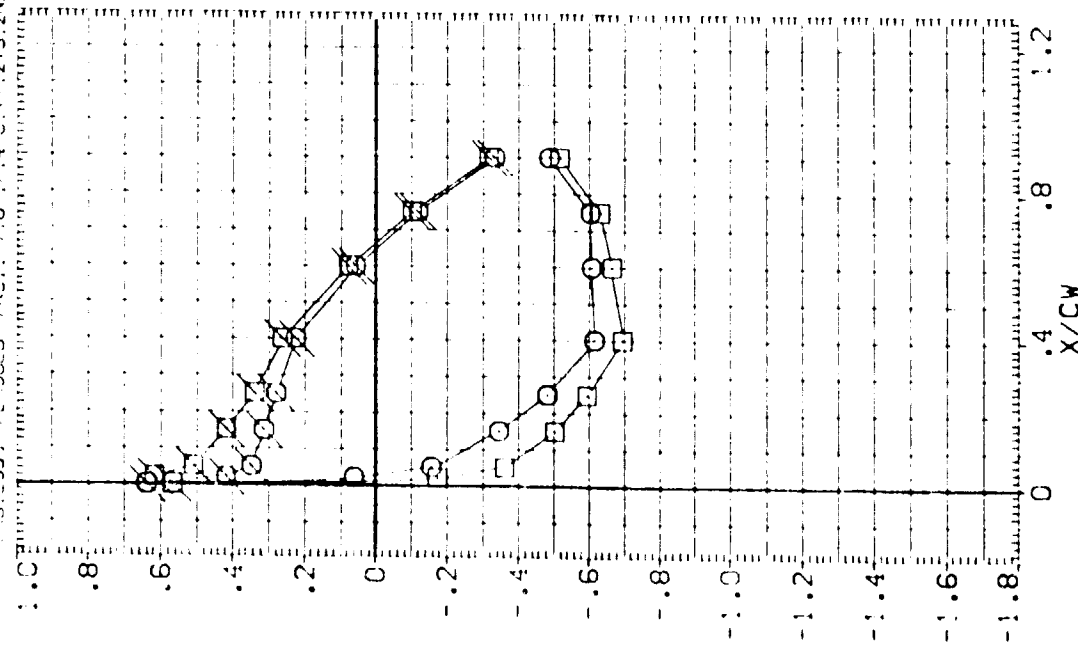
CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

PARAMETRIC VALUES  
 1.250 ELEVON .00C  
 .000 SPDBRK .00C

MACH  
 RUDDER

ALPHA C Y/B BETA  
 4.300 .887 -1.970  
 7.910

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (P81U33) OPEN ARC11-716 1A14 01+112+512+25+110 UPPER WING  
 (P81U33) FLAGGED ARC11-716 1A14 01+112+512+25+110 LOWER WING

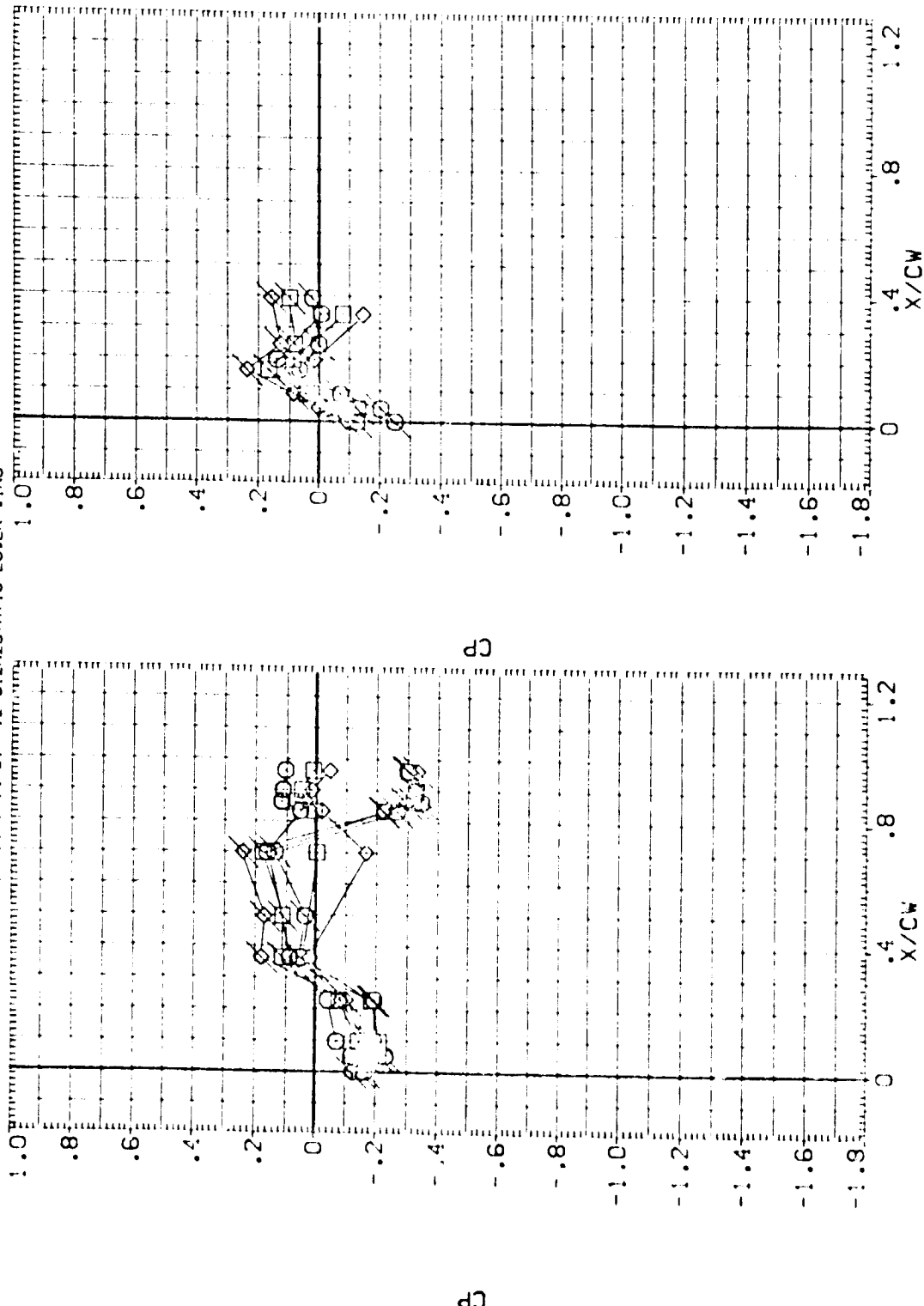


CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

PARAMETRIC VALUES  
 MACH 1.250 ELEVON .000  
 RUDDER .000 SPOILER .000

SYMBOL ALPHA-0 Y/BV BETA-0  
 O -8.220 .299 .020  
 O -4.200 .364  
 O -1.760

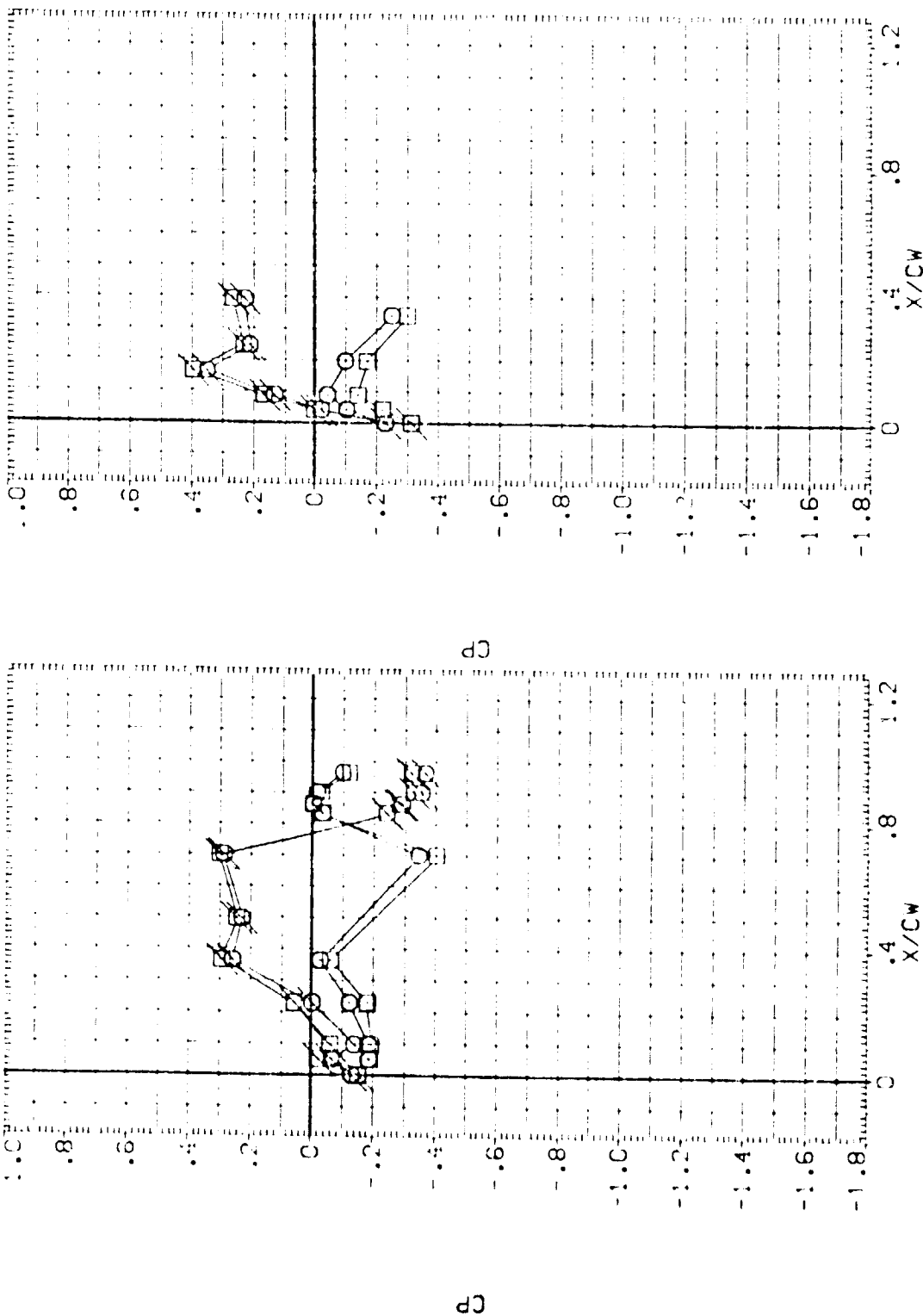
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R81U33) OPEN ARC11-716 [A14 01+T12+S12+25+ATIO UPPER WING  
 (R81U33) FLAGGED ARC11-716 [A14 01+T12+S12+25+ATIO LOWER WING



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

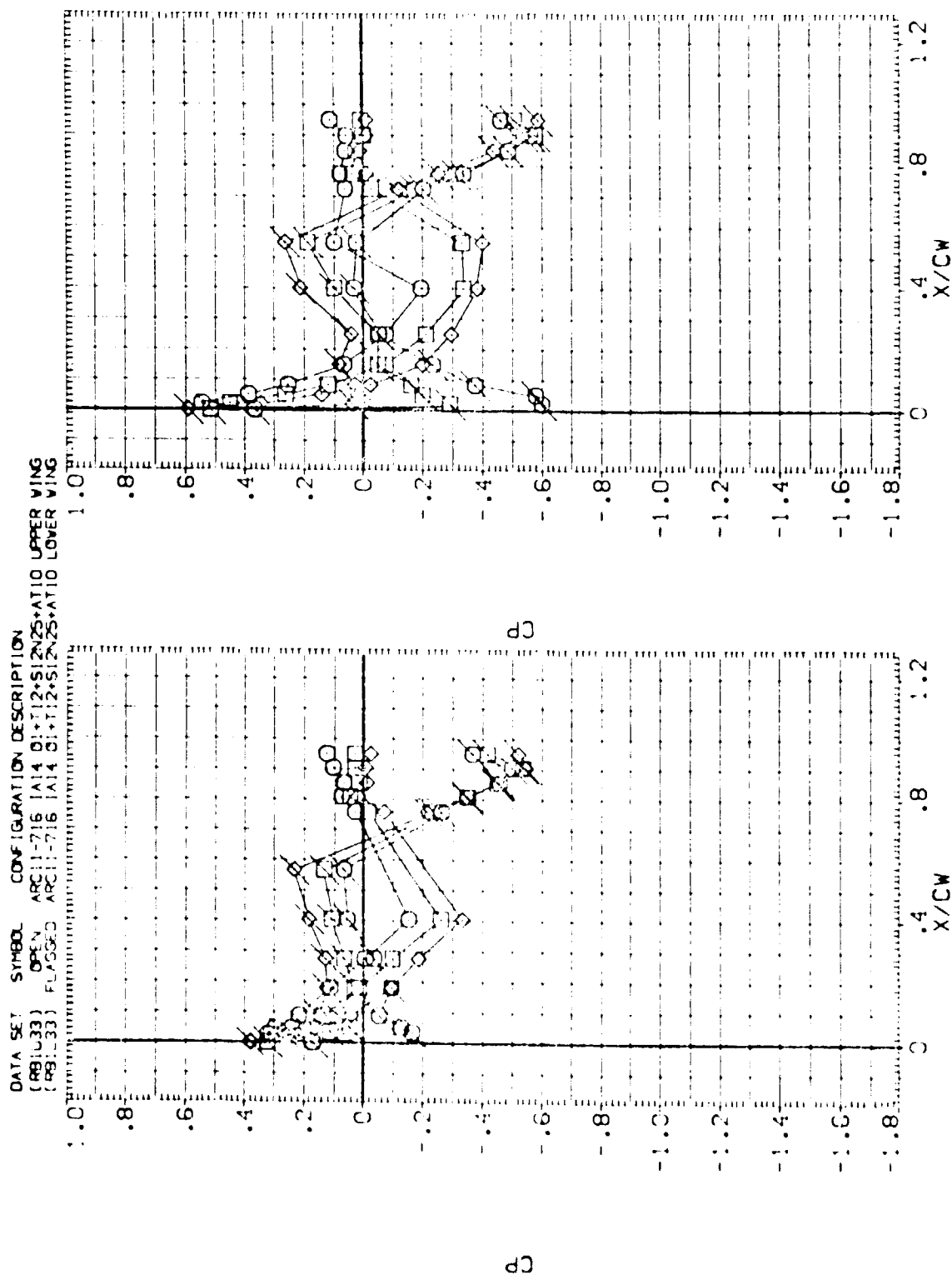
SYMBOL    ALPHA    Y/B    BETA    MACH    RUDDER    PARAMETRIC VALUES  
           4.300    .298    .020    1.250    ELEVON    .000  
           7.910    .364           1.000    SPEED    .000

DATA SET    SYMBOL    CONFIGURATION DESCRIPTION  
 (R8) (U33)    OPE    ARC11-716 [A14 01+12+512+25] RATIO UPPER WING  
 (R8) (U33)    F. AGGED    ARC11-716 [A14 01+12+512+25] RATIO LOWER WING



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

SYMBOL	ALPHA	Y/B	BETA	MACH	PARAMETRIC VALUES
○	-8.270	.427	.020	RUDDER	1.250 ELEVON .000
◇	-4.200	.534			.000 SPOBRK .000
◇	-1.760				



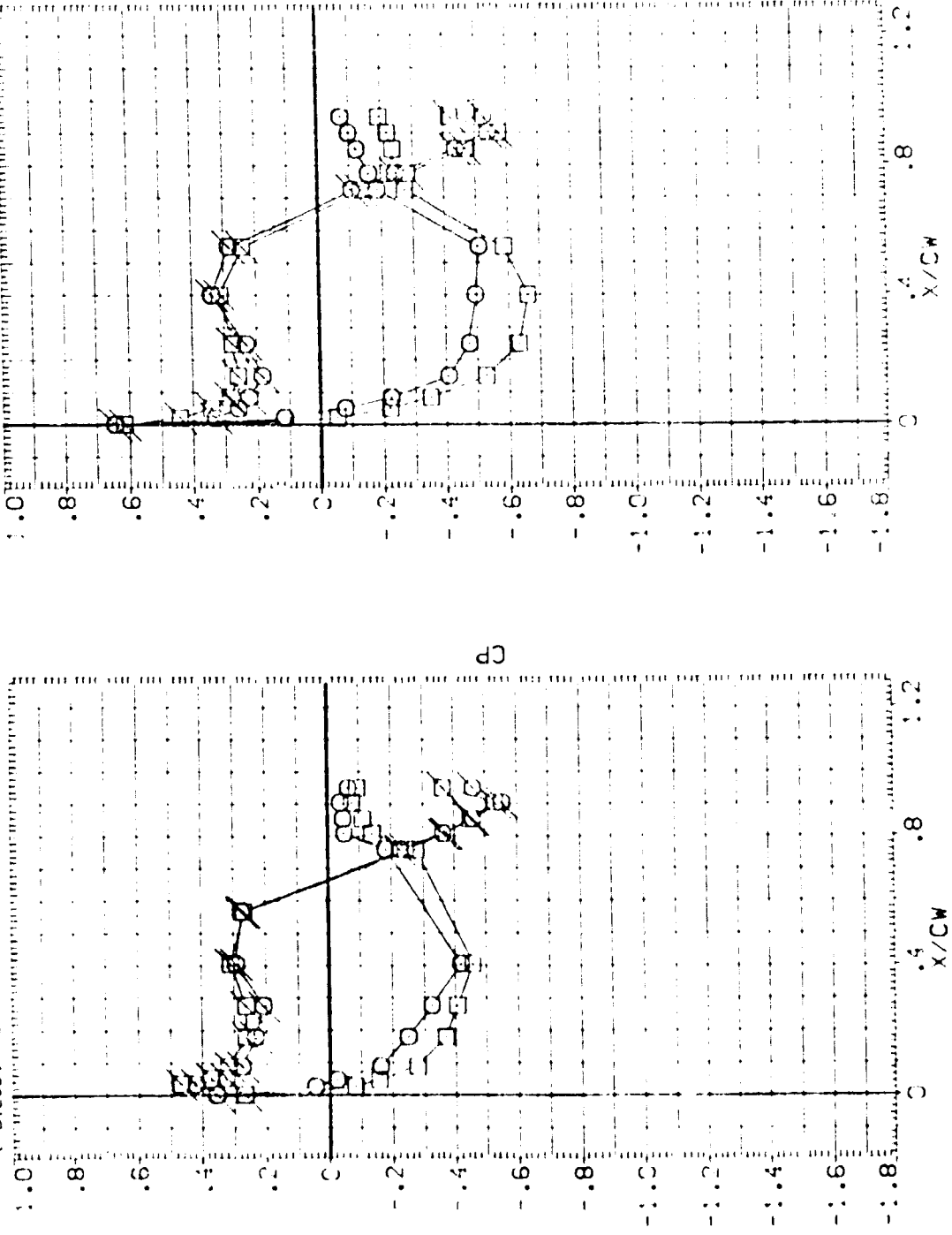
CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES



PARAMETRIC VALUES  
 MACH 1.250 ELEVATION .000  
 RUDDER .000 SPOILER .000

ALPHA 4.300 BETA 0.020  
 7.910 .534

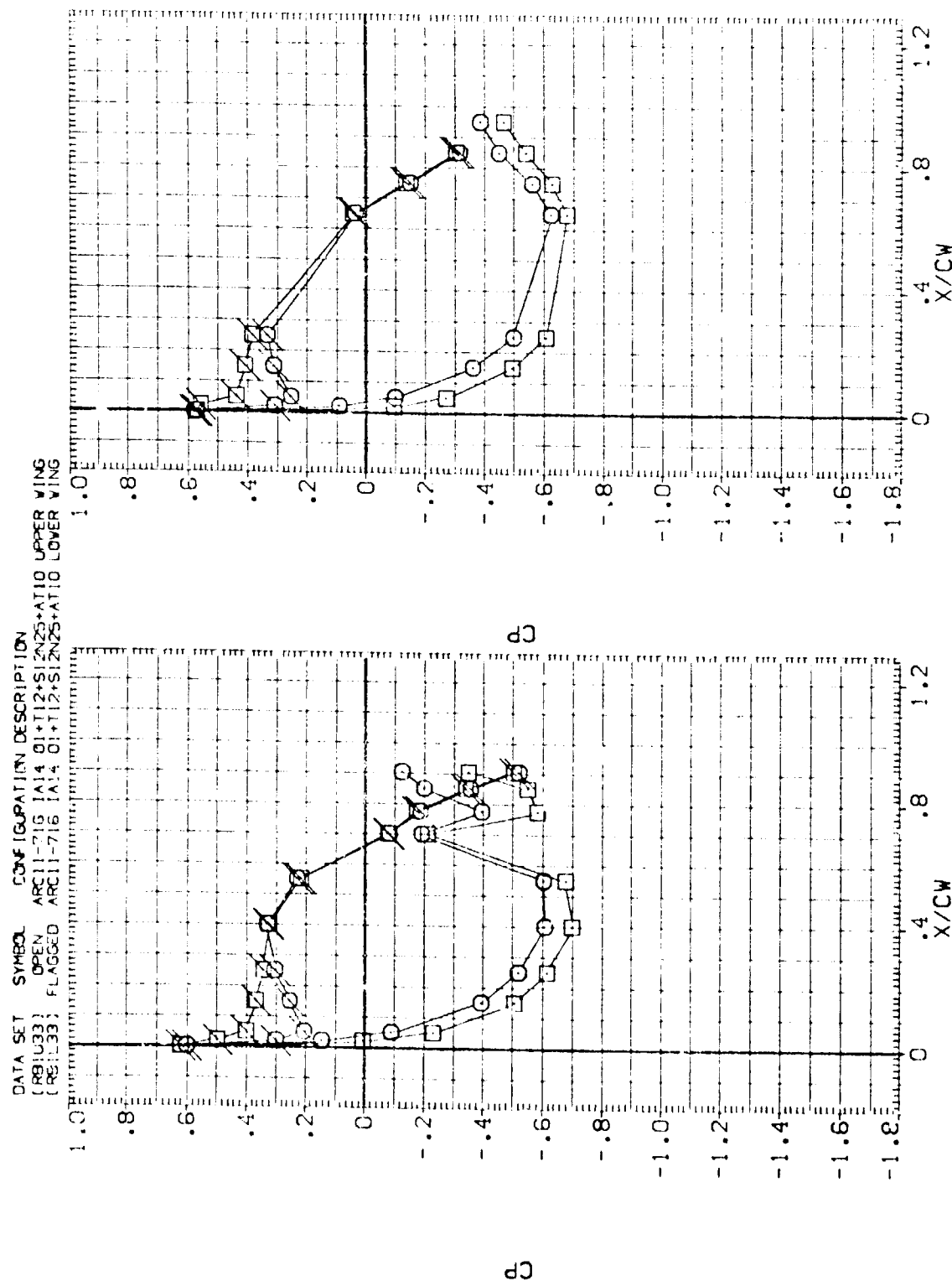
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R81033) OPEN ARC11-716 [A] 4 0 1 1 2 5 2 7 5 2 1 0 UPPER WING  
 (R81033) FLAGGED ARC11-716 [A] 4 0 1 1 2 5 2 7 5 2 1 0 LOWER WING



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES



SYMBOL	ALPHA	Y/RV	BETA	MACH	PARAMETRIC VALUES
○	4.300	.673	.020	RUDDER	1.250 ELEVON
□	7.910	.780			.000 SPDRK

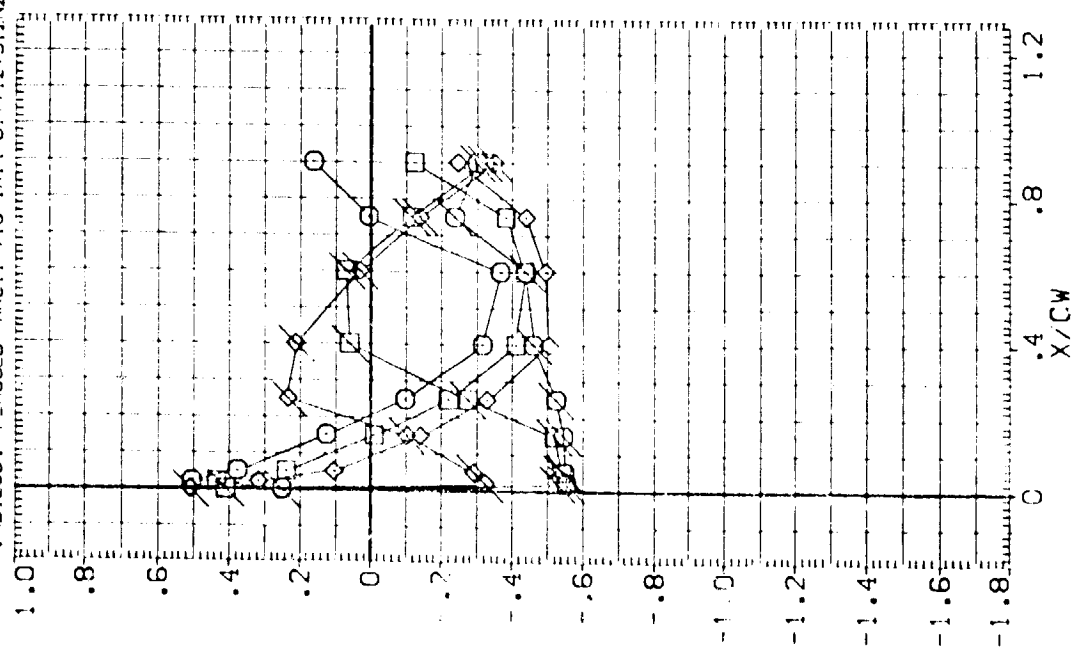


CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

SYMBOL    ALPHA0    Y/BV    BETAG  
 ○    -8.220    .887    .020  
 □    -4.200  
 ◇    -.760

PARAMETRIC VALUES  
 MACH    1.250    ELEVON  
 RUDDER    .000    SPDBRK    .000

DATA SET    SYMBOL    CONFIGURATION DESCRIPTION  
 (R81U33)    OPEN    ARC11-716 [A]4 01+112+512N25+AT10 UPPER VING  
 (R81L33)    FLAGGED    ARC11-716 [A]4 01+112+512N25+AT10 LOWER VING



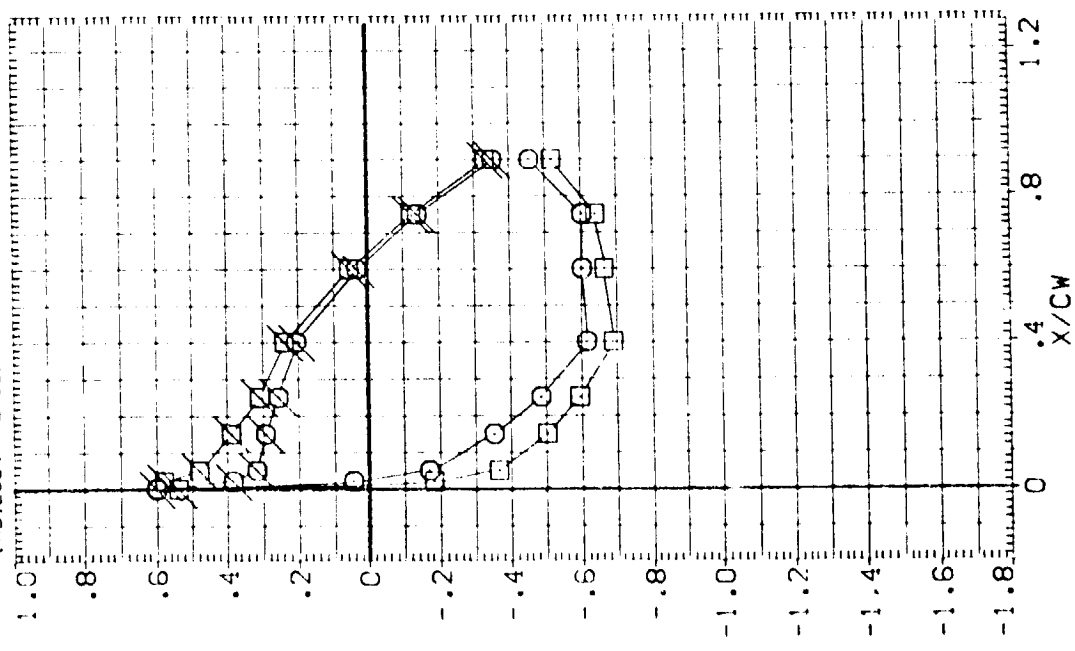
CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

PARAMETRIC VALUES  
 1.230 ELEVON .000  
 .000 SPOILER .000

MACH  
 RUDDER

SYMBOL ALPHA C Y/BY BETA  
 4.300 .020  
 7.910

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R81U33) OPEN ARC11-716 1A14 01+T12+S12N25+AT10 UPPER WING  
 (R81L33) FLAGGED ARC11-716 1A14 01+T12+S12N25+AT10 LOWER WING



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

SYMBOL

ALPHA  
-8.220  
-4.200  
-.760

Y/BV  
.299  
.364

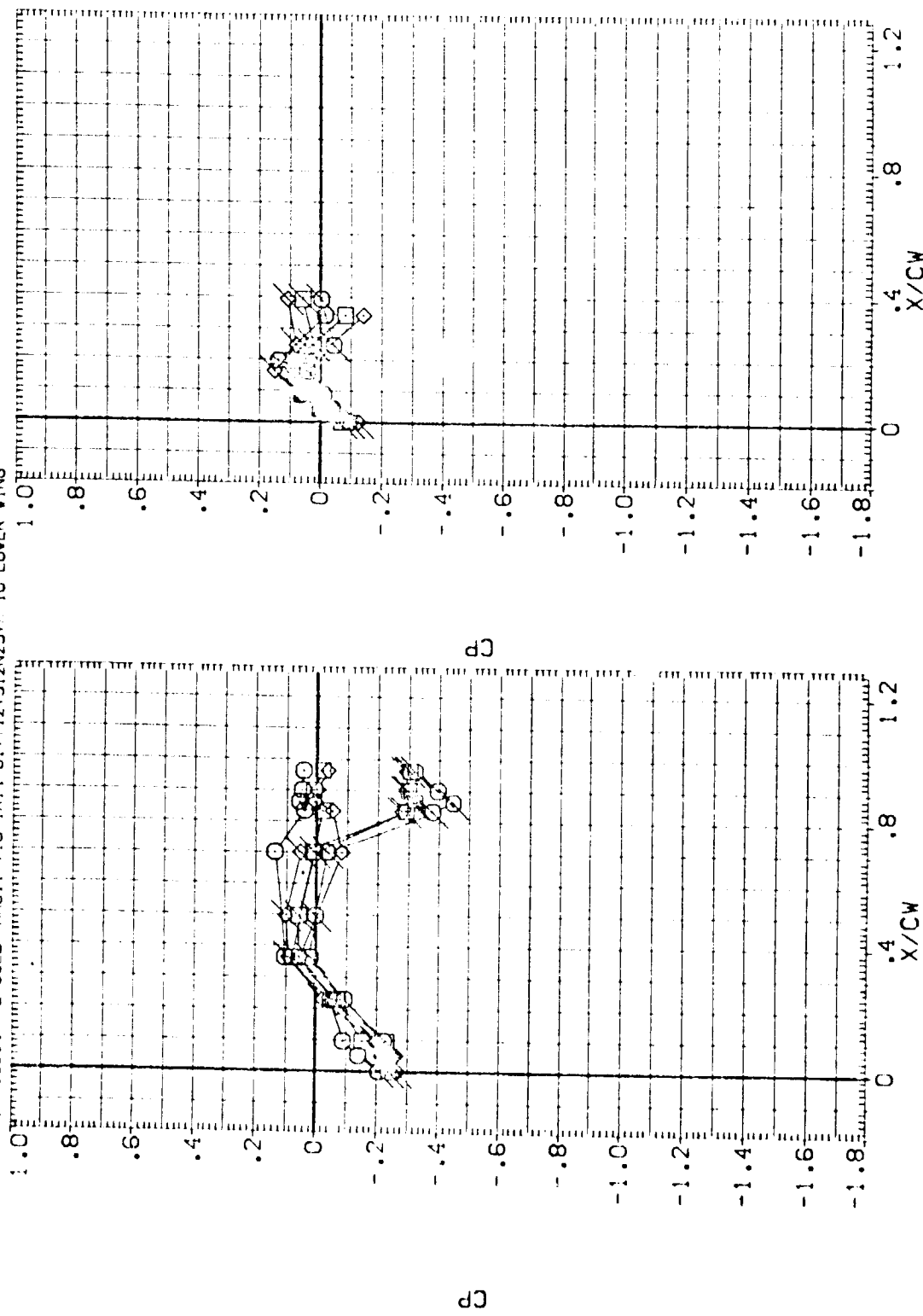
BETAG  
4.080

PARAMETRIC VALUES

MACH 1.250  
RUDDER .000  
ELEVON .000  
SPDBRK .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RBIU33) OPEN ARC11-716 1A14 01+112+512+25+AT10 UPPER WING  
(RBIU33) FLAGGED ARC11-716 1A14 01+112+512+25+T10 LOWER WING



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

SYMBOL

ALPHAC

Y/BV

BETAB

4.300

7.910

.299

.364

4.080

1.250

1.000

1.000

1.000

1.000

1.000

1.000

1.000

1.000

1.000

1.000

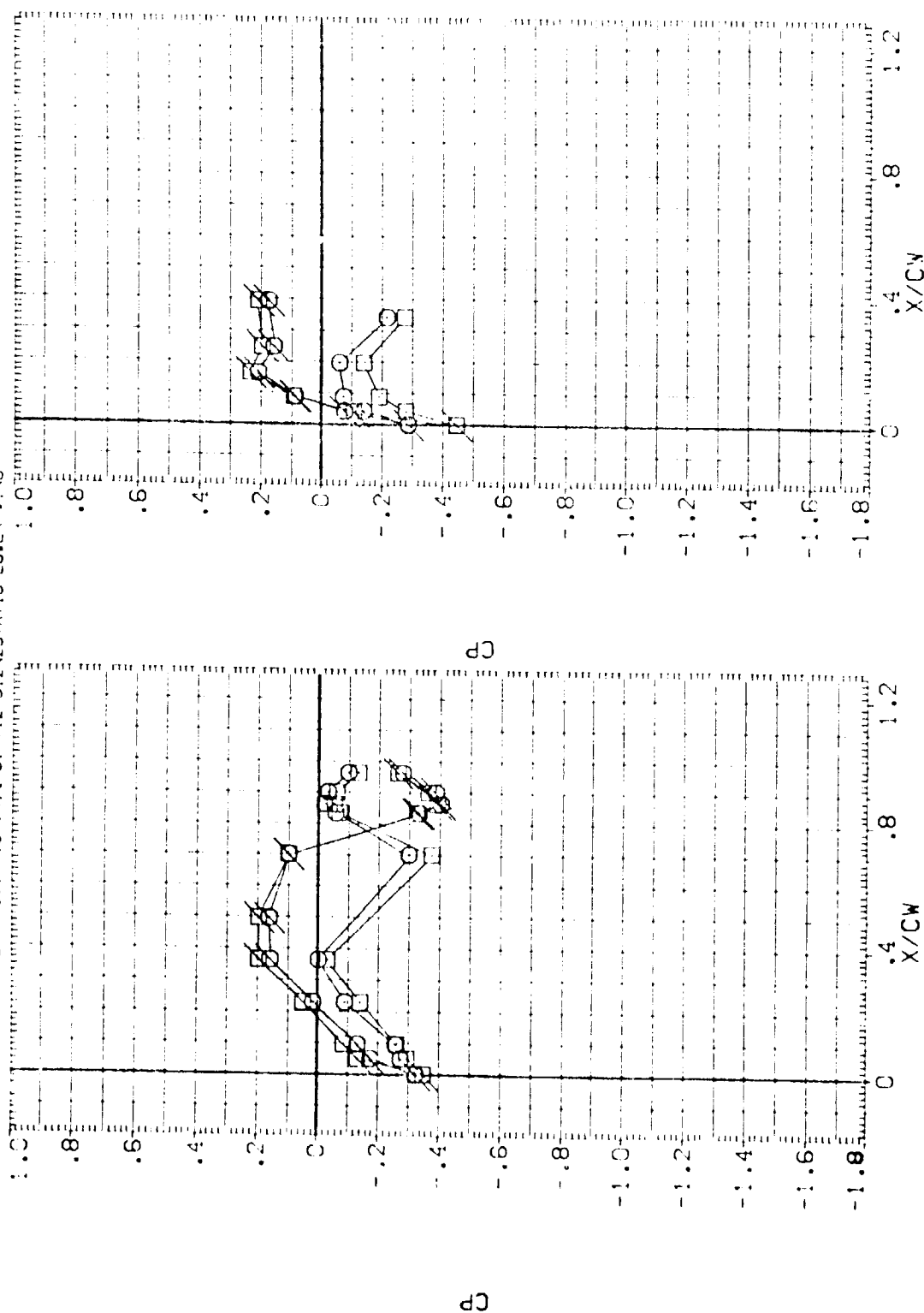
1.000

1.000

1.000

1.000

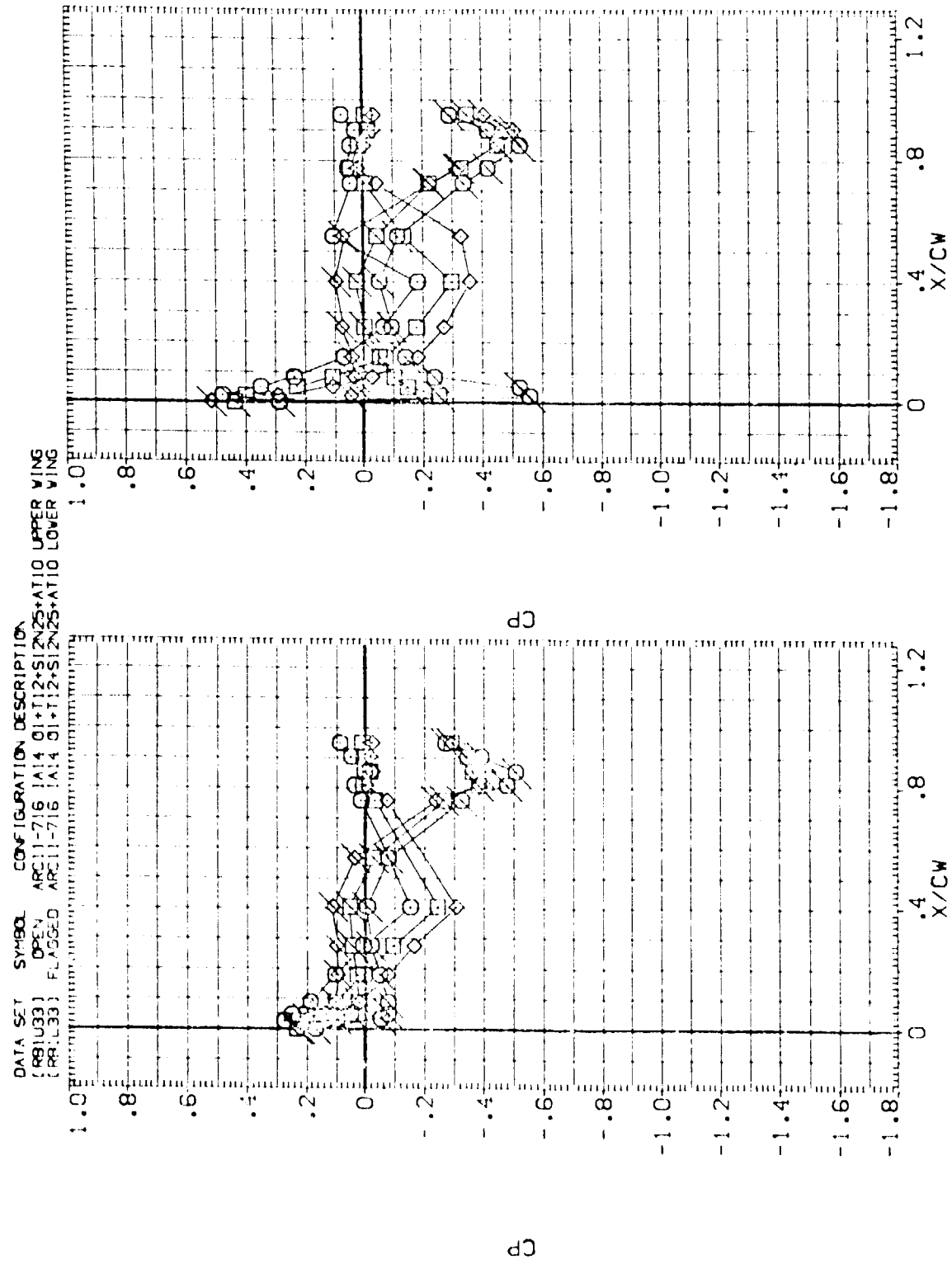
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R81033) OPEN ARC11-716 [A14 01+112-S12-25+ATIO UPPER WING  
 (R81033) FLAGGED ARC11-716 [A14 01+112-S12-25+ATIO LOWER WING



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

PARAMETRIC VALUES  
 MACH 1.250  
 RUDDER .000  
 ELEVON .000  
 SPOILER .000

SYMBOL ALPHA<sub>0</sub> Y/BV BETA<sub>0</sub>  
 ○ -8.220 .427 4.080  
 □ -4.200 .534  
 ◇ -7.60



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

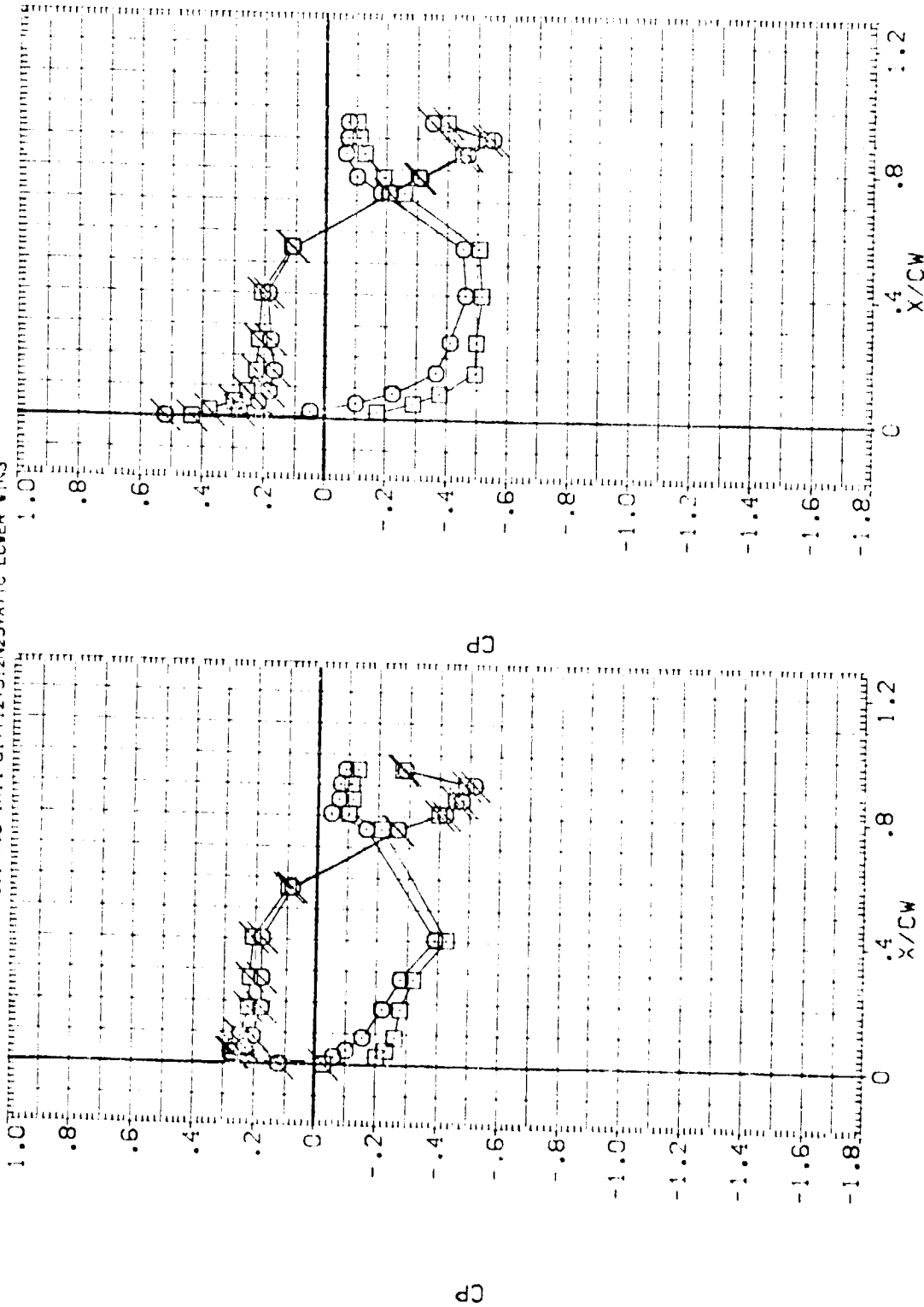


SYMBOL ALPHA BETA  
 4.300 4.27 4.080  
 7.910 .534

Y/BV  
 .427  
 .534

MACH RUDDER  
 1.250  
 .000  
 ELEVON  
 .000  
 SPDRK  
 .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R8)U33) OPEN ARC11-716 [A14 01+T12+S12+Z5+AT10 UPPER WING  
 (R8)L33) FLAGGED ARC11-716 [A14 01+T12+S12+Z5+AT10 LOWER WING



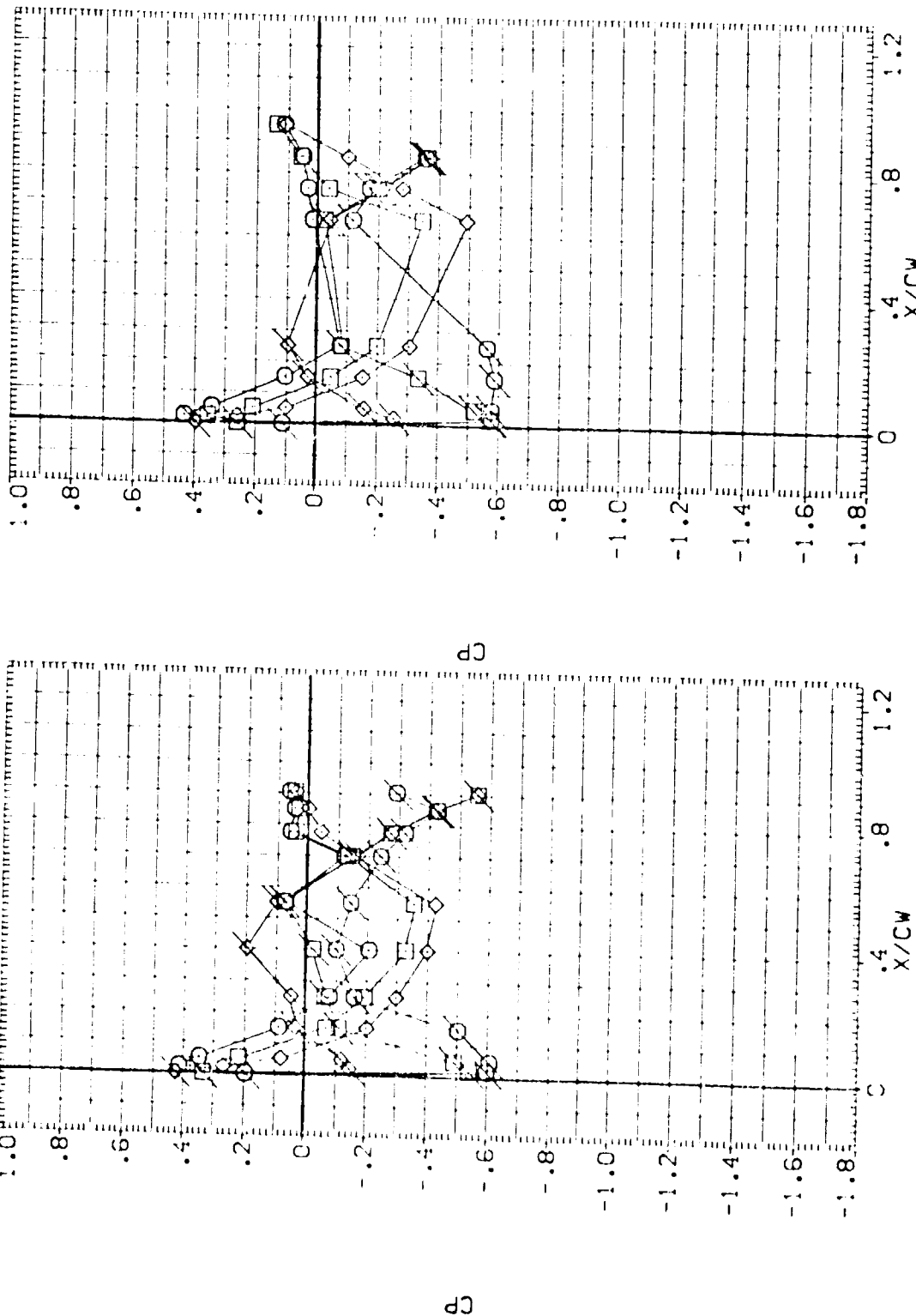
CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

SYMBOL ALPHA<sub>0</sub> Y/B<sub>0</sub> BETA<sub>0</sub>

○ -8.220 .673 4.080  
 □ -4.200 .780  
 ◇ -7.760

PARAMETRIC VALUES  
 MACH 1.250 ELEV<sub>0</sub> .000  
 RUDDER .000 SPOBR<sub>0</sub> .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R8:U33) OPEN ARC11-716 [A:4 0]12+SI2N25+AT10 UPPER WING  
 (R8:L33) FLAGGED ARC11-716 [A:4 0]12+SI2N25+AT10 LOWER WING



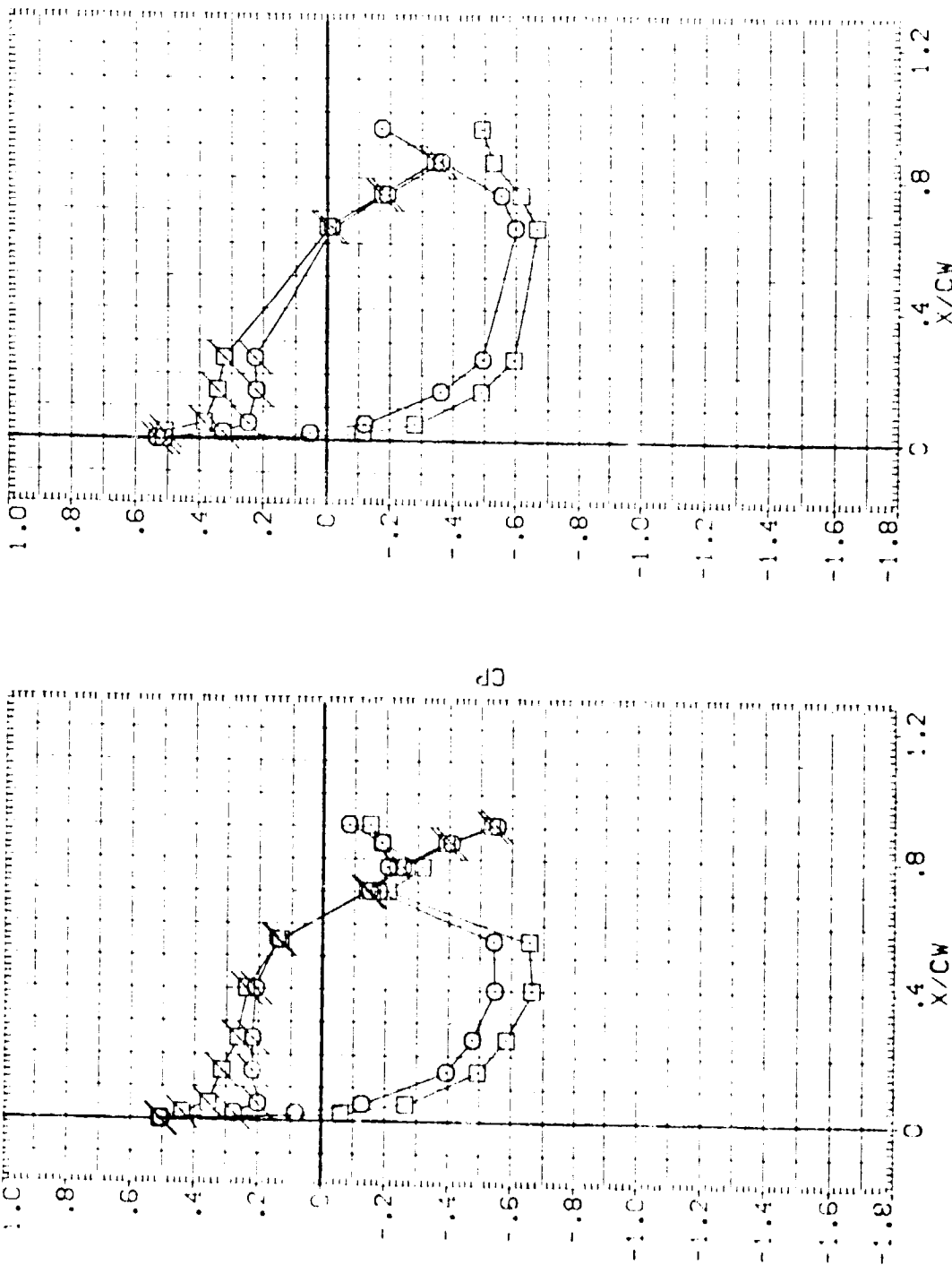
CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

SYMBOL ALPHA0 Y/BV SETAC  
 O 4.300 .673 4.080  
 □ 7.910 .780

MACH RUCOR  
 PARAMETRIC VALUES  
 1.250 ELEVON  
 .000 SPDGRY  
 .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(R81-33) OPEN ARC11-716 [A14 01+712+512+25+AT10] UPPER WING  
 (R81-33) FLAGGED ARC11-716 [A14 01+712+512+25+AT10] LOWER WING



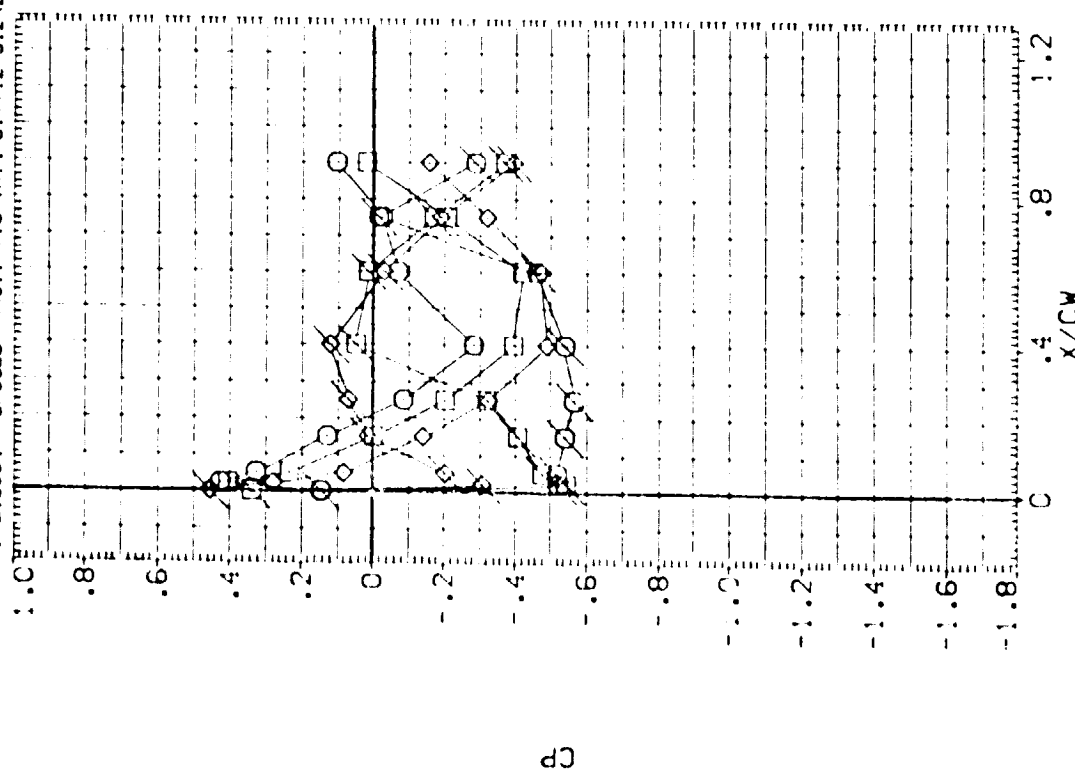
CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

SYMBOL ALPHA  
O -8.220  
I -4.200  
Q -7.60

Y/BV .887  
BETA/D 4.080

PARAMETRIC VALUES  
MACH 1.250  
ELEVON .000  
RUDDER .000  
SPOBRK .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
(RBLU33) OPEN ARC11-7116 1A14 01+712+512N25+AT10 UPPER WING  
(RBLU33) FLAGGED ARC11-7116 1A14 01+712+512N25+AT10 LOWER WING



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

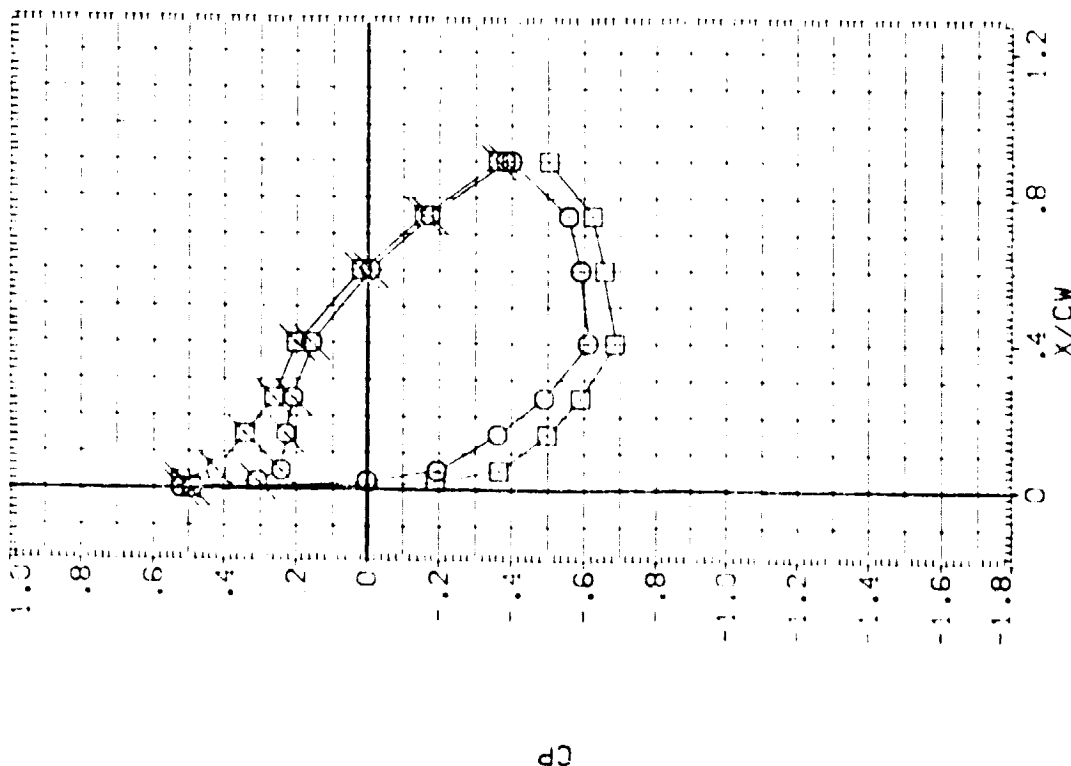
PARAMETRIC VALUES  
 1.250 ELEVON  
 .000 SPC3RK  
 .000

MACH  
 RUDDER

ALPHA  
 4.300  
 7.910

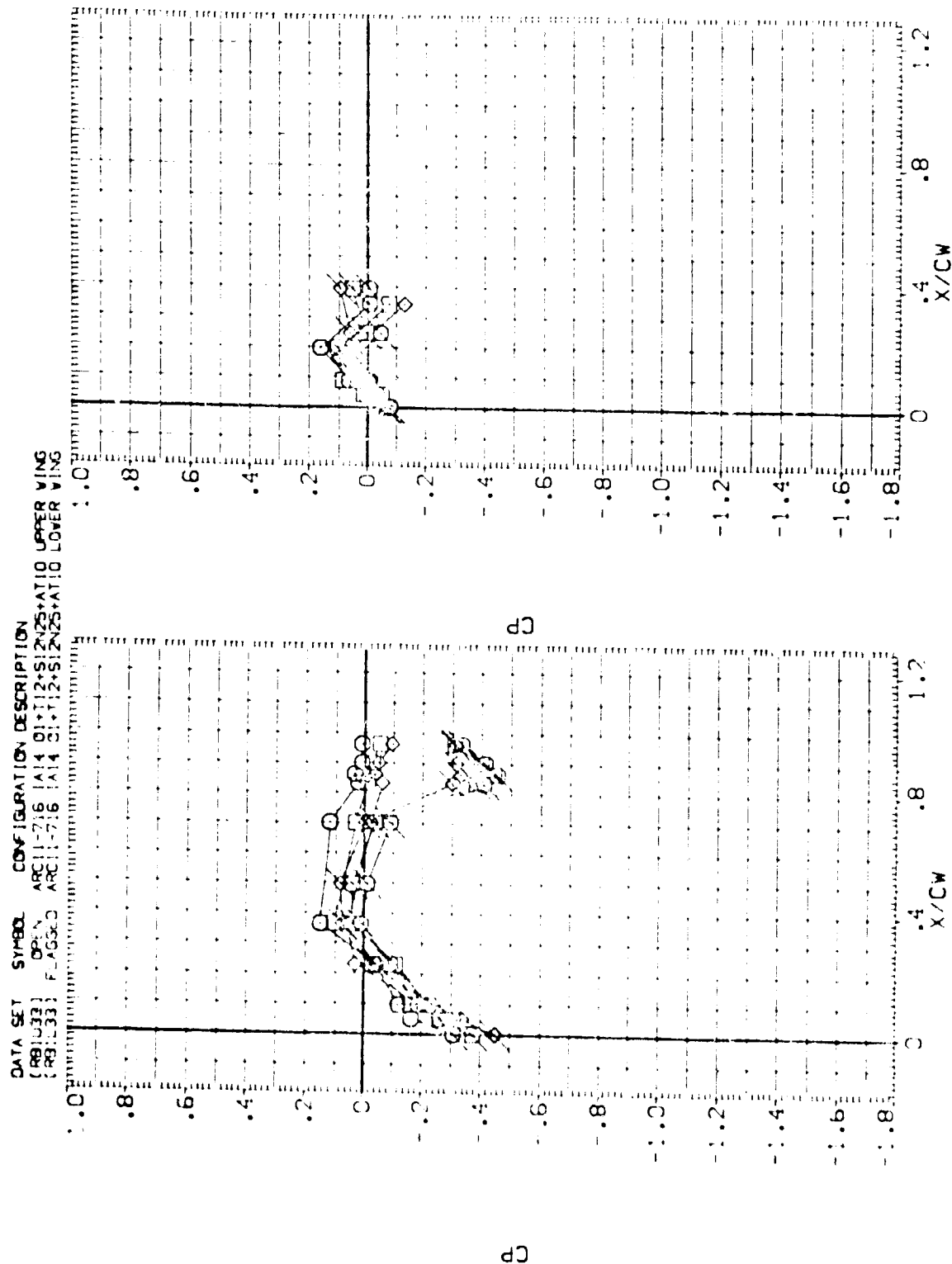
BETA  
 .887  
 1.080

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R91033) OPEN ARC11-215 1A14 01+112+512+25+AT10 UPPER WING  
 (R91033) FLASSED ARC11-215 1A14 01+112+512+25+AT10 LOWER WING



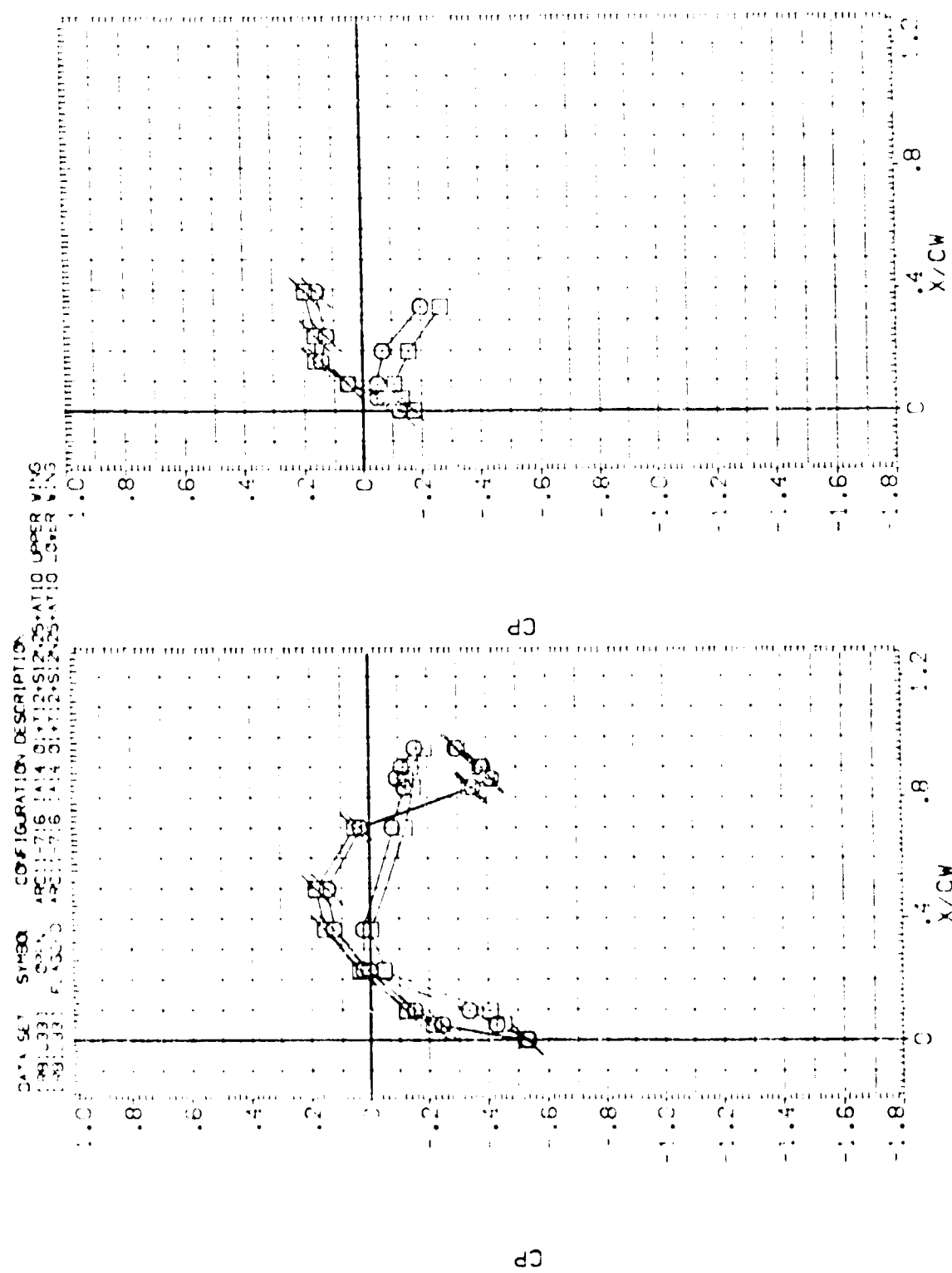
CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

SYMBOL	ALPHA3	Y/BV	BETA3	MACH	PARAMETRIC VALUES
○	-0.220	.293	8.120	RUDDER	1.250 ELEVON
◇	-4.200	.361			.000 SPEED
◇	-760				



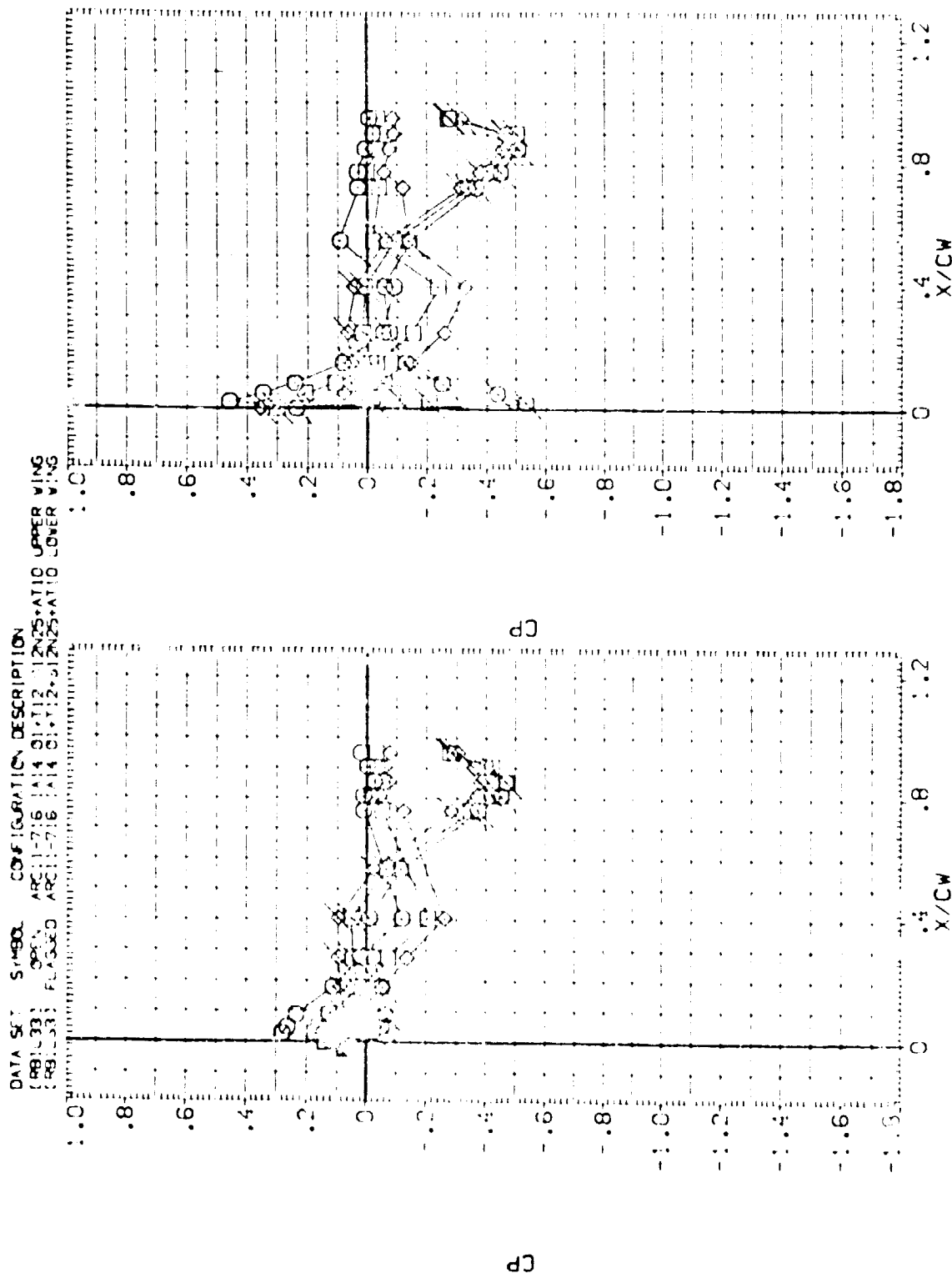
PARAMETRIC VALUES  
 MACH 1.250  
 RUDDER .000  
 SPOILER .000

SYMBOL ALPHA<sub>0</sub> 1.8°  
 BETA<sub>0</sub> 8.120  
 .299  
 .364



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

SYMBOL	ALPHA	Y/B	BETA	MACH	PARAMETRIC VALUES
○	-8.220	.427	8.120	RUDDER	1.250 ELEVON
○	-4.200	.534			1.000 SPOBRK
○	-1.160				.000



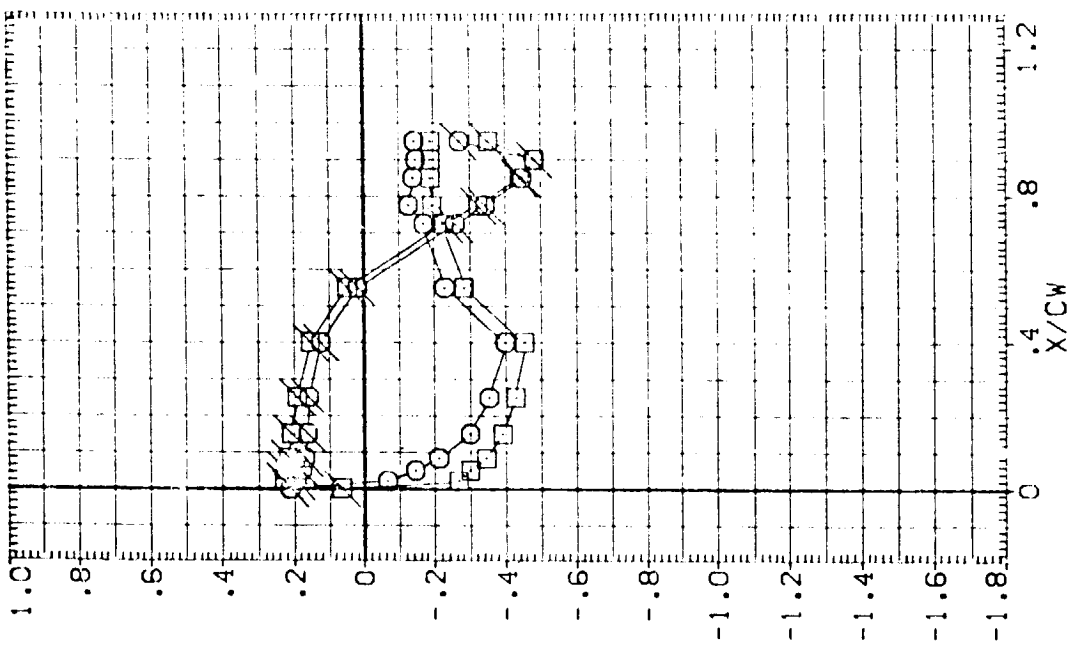
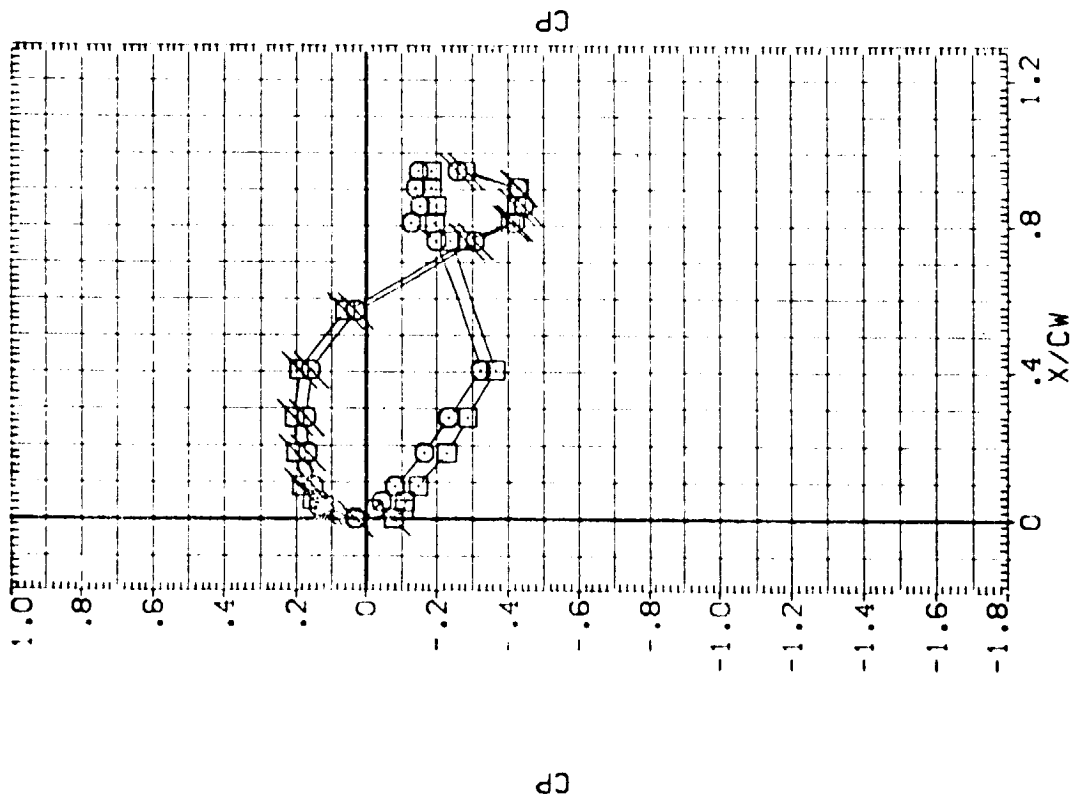
CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES



BETA  
8.120

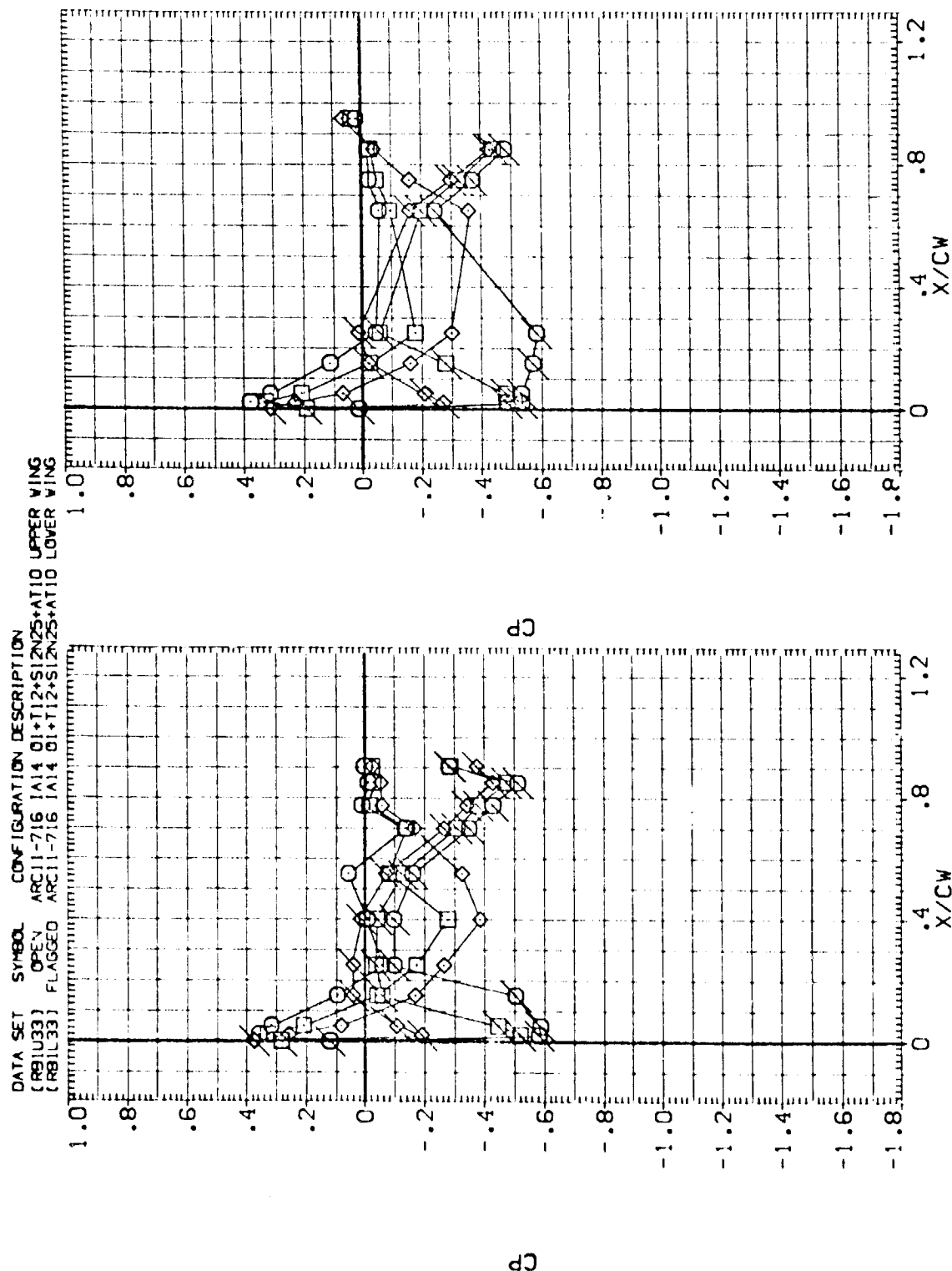
PARAMETRIC VALUES	
MACH	1.250 ELEVON
RUDDER	.000 SPDBRK
	.000
	.000

DATA SET	SYMBOL	CONFIGURATION	DESCRIPTION
(R8IU33)	OPEN	ARC11-7:6 :A:4	Q1+T12-S12N25+AT10 UPPER WING
(R8IL33)	FLAGGED	ARC11-7:6 :A:4	Q1+T12-S12N25+AT10 LOWER WING



# CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

SYMBOL	ALPHA	Y/BV	BETA0	PARAMETRIC VALUES	
	-8.220	.673	8.120	MACH	1.250
	-4.200	.780		RUDDER	.000
	-.760				ELEVON
					SPDRK
					.000

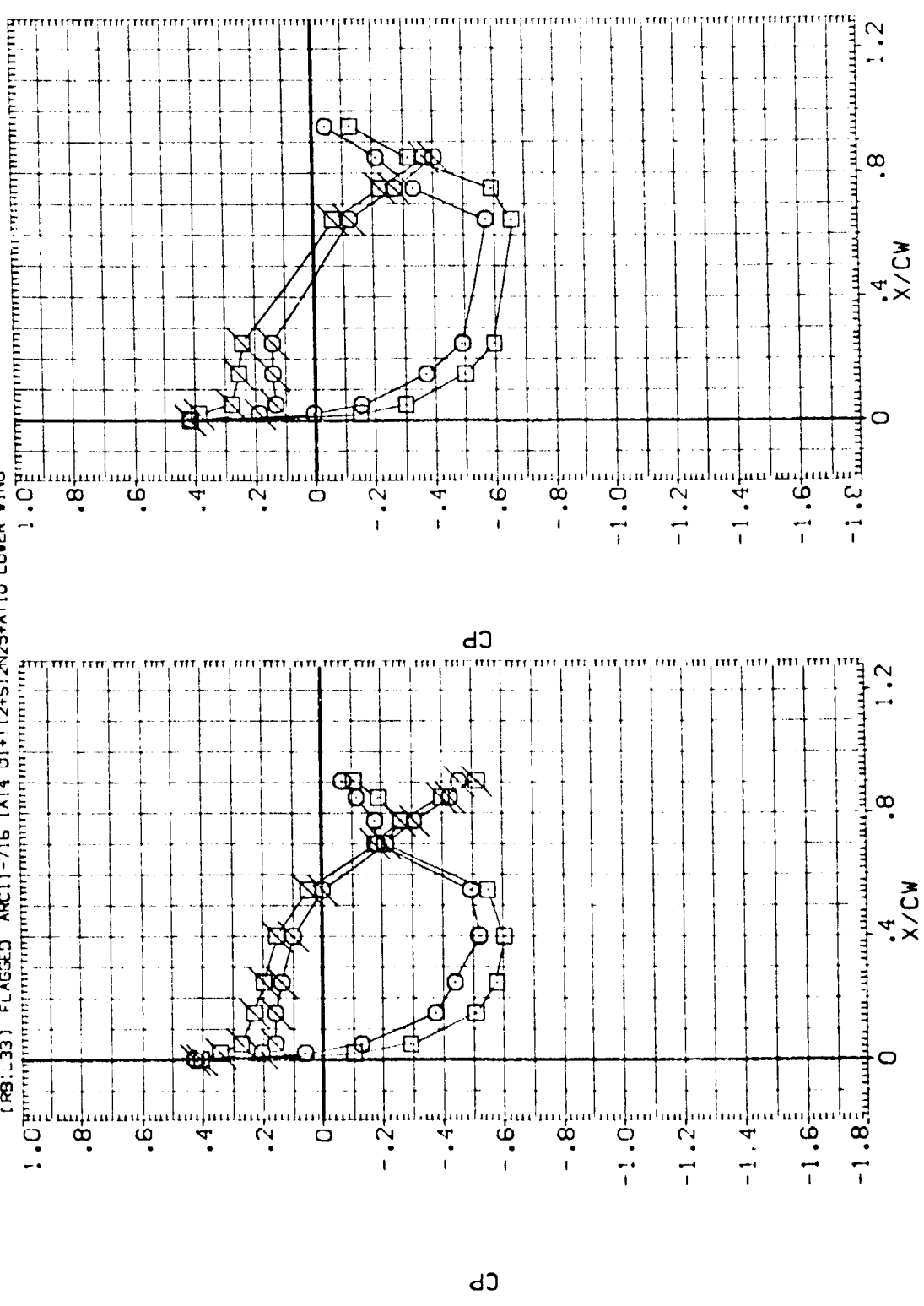


CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

PARAMETRIC VALUES  
 MACH RUDDER 1.250 .000  
 ELEVON SPOBRK .000

SYMBOL ALPHA0 Y/BV BETA0  
 4.300 .673 8.120  
 7.910 .780

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RB11U33) OPEN ARC11-716 [A14 01+12+512+25+AT10] UPPER WING  
 (RB11U33) FLAGGED ARC11-716 [A14 01+12+512+25+AT10] LOWER WING

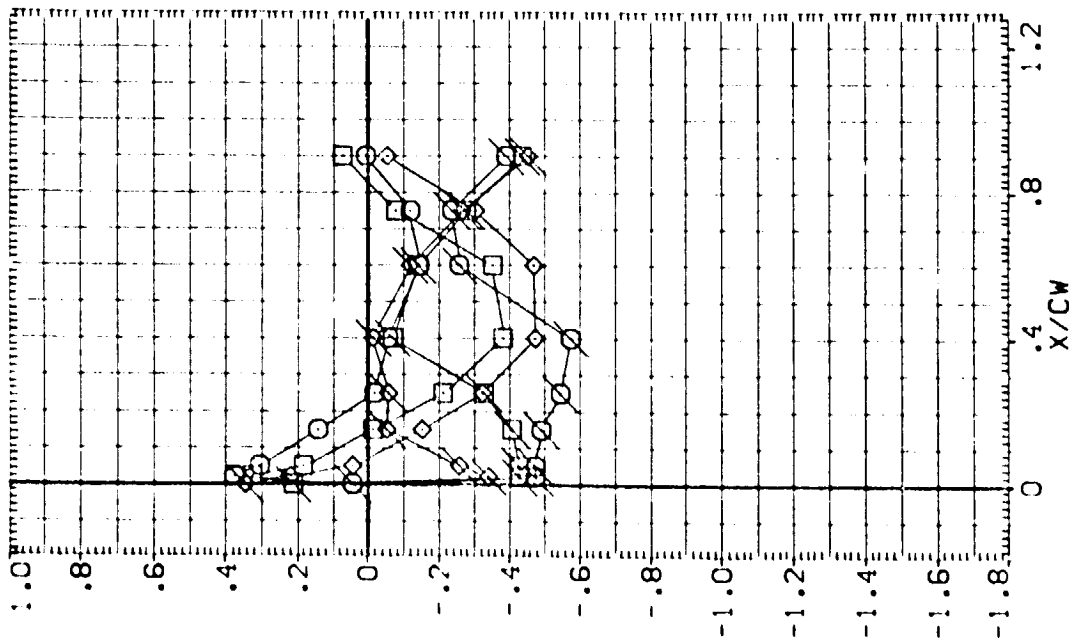


CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

MACH 1.250  
 RUDDER .000  
 PARAMETRIC VALUES  
 ELEVON .000  
 SPOBRK .000

SYMBOL ALPHA0 Y/BV BE (AO)  
 -8.220 .887 8.120  
 -4.200  
 -7.60

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R81U33) OPEN ARC 11-716 A14 01+712+S12N25+AT10 UPPER WING  
 (R81L33) FLAGGED ARC 11-716 A14 01+712+S12N25+AT10 LOWER WING

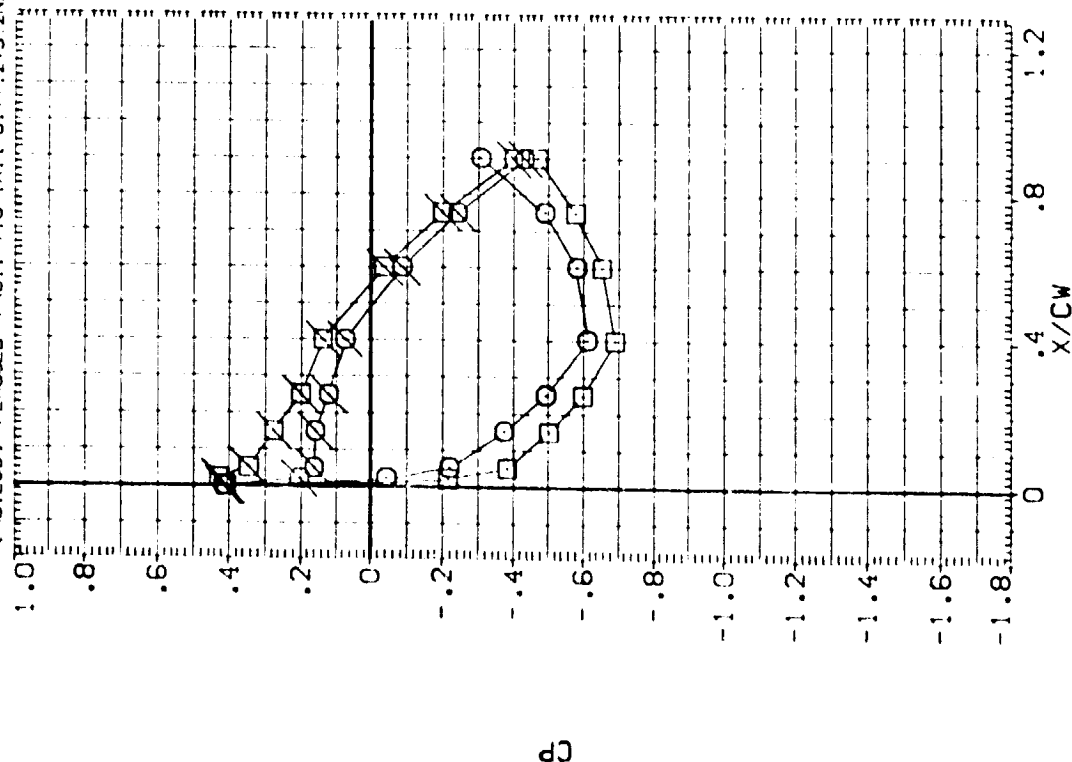


CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

PARAMETRIC VALUES  
MACH 1.250 ELEVON .000  
RUDDER .000 SPDBRK .000

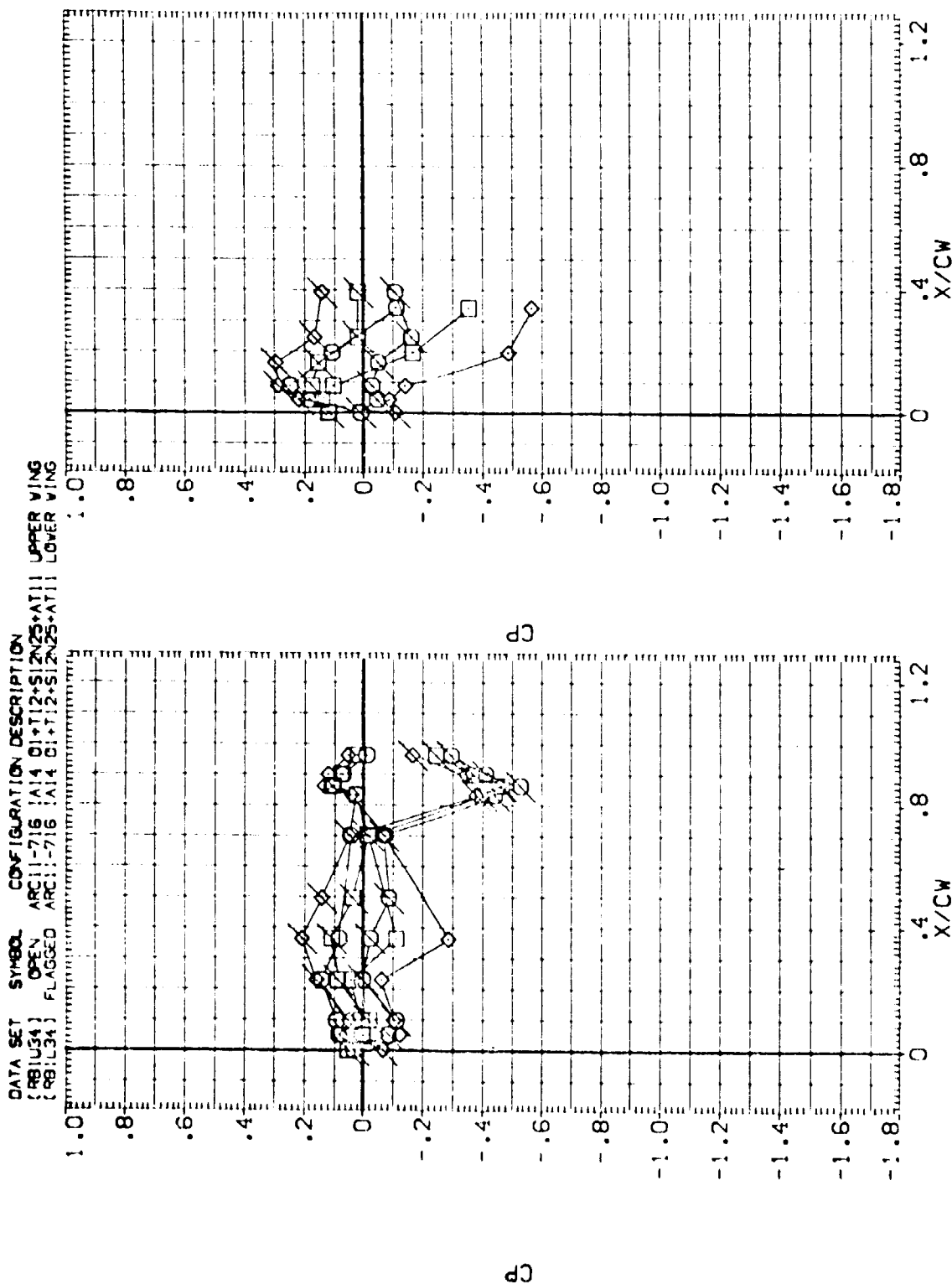
SYMBOL ALPHA-0 BETA-0  
4.300 .887 8.120  
7.910

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
(R81U33) OPEN ARC11-718 [A14 01+112+S12N25+AT10 UPPER WING  
(R81U33) FLAGGED ARC11-718 [A14 01+112+S12N25+AT10 LOWER WING



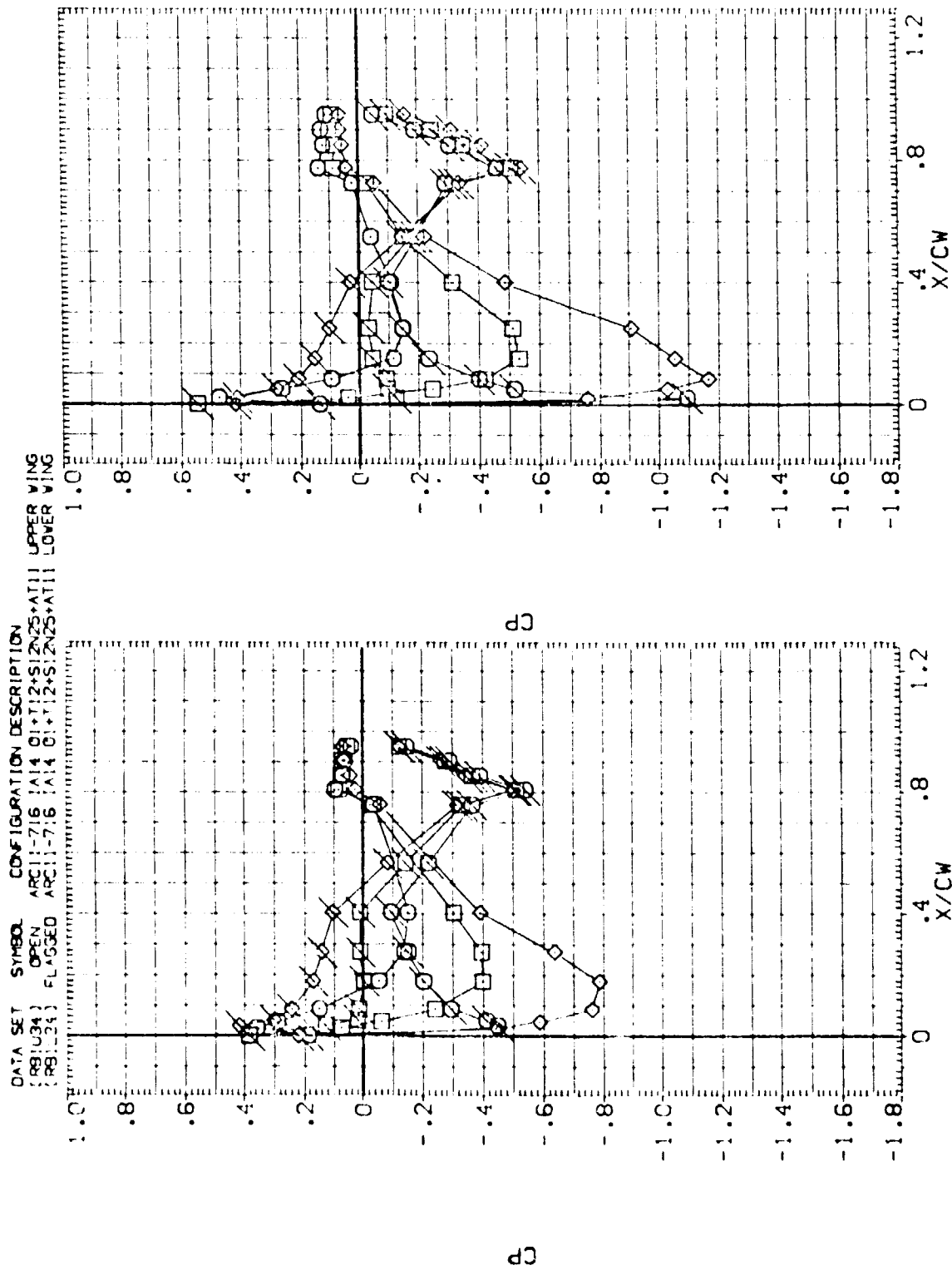
CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

SYMBOL	ALPHA	BETA	Y/BV	PARAMETRIC VALUES
○	-8.010	-7.580	.299	MACH .000 ELEVON .000
□	-3.10		.364	MACH .000 RUDDER .000
◇	7.890			



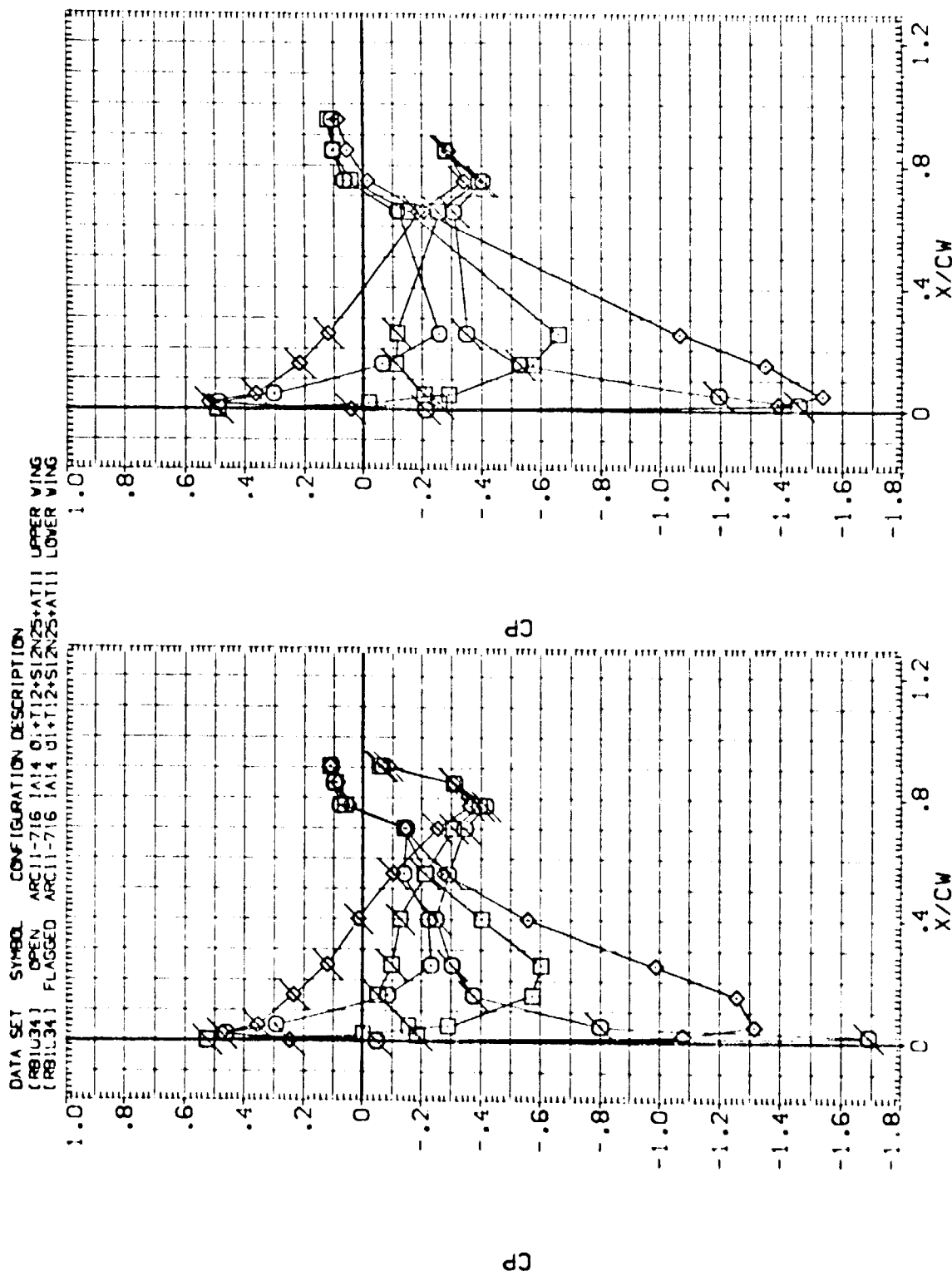
CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

SYMBOL	ALPHA	BETA	Y/BV	BETAG	MACH	PARAMETRIC VALUES
○	-8.0°C		.427	-7.980	RUDDER	.600 ELEVON
□	-3.1°C		.534			.000 SPOILER
◇	7.69°C					.000



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

SYMBOL	ALPHA	Y/BV	BETA	MACH	PARAMETRIC VALUES	
	-8.010	.673	-7.980		.600	ELEVON
	-3.310	.780		.000	SPDBRK	
	7.890					



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

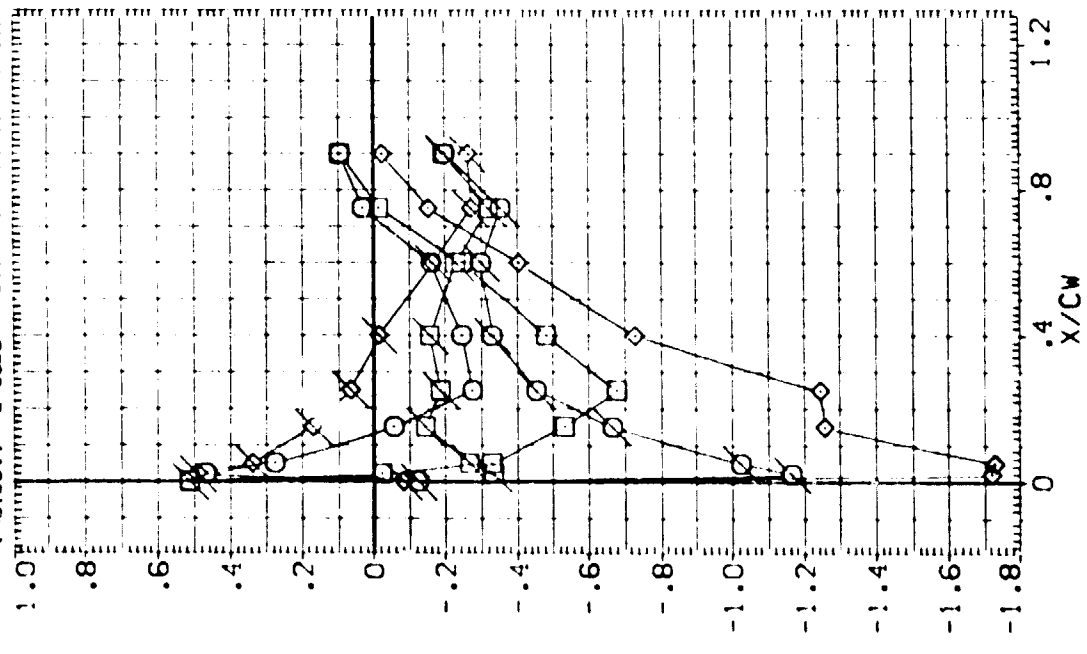


PARAMETRIC VALUES  
 .600 ELEVON  
 .000 SPOILER

MACH  
 RUDDER

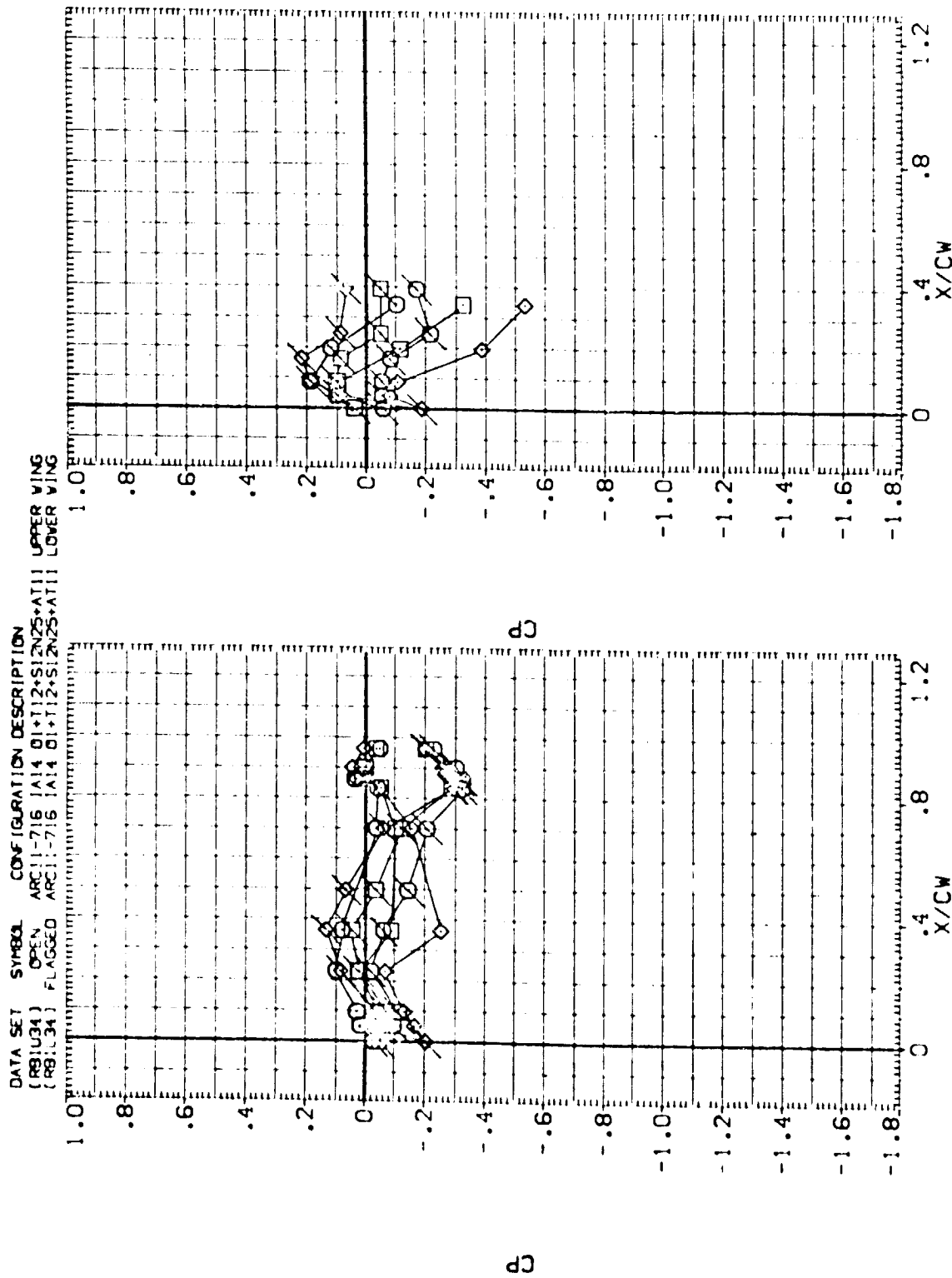
SYMBOL ALPHA0 Y/BV BETA0  
 -8.010 .887 -7.980  
 -3.10  
 7.890

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RB1034) OPEN ARC11-716 [A14 0]112+S12N25+AT11 UPPER WING  
 (RB1034) FLAGGED ARC11-716 [A14 0]112+S12N25+AT11 LOWER WING



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

SYMBOL	ALPHA	Y/BV	BETA	MACH	PARAMETRIC VALUES
○	-8.010	.299	.030	FLUOR	.600 ELEVON
□	-3.10	.364			.000 SPDRK
◇	7.890				

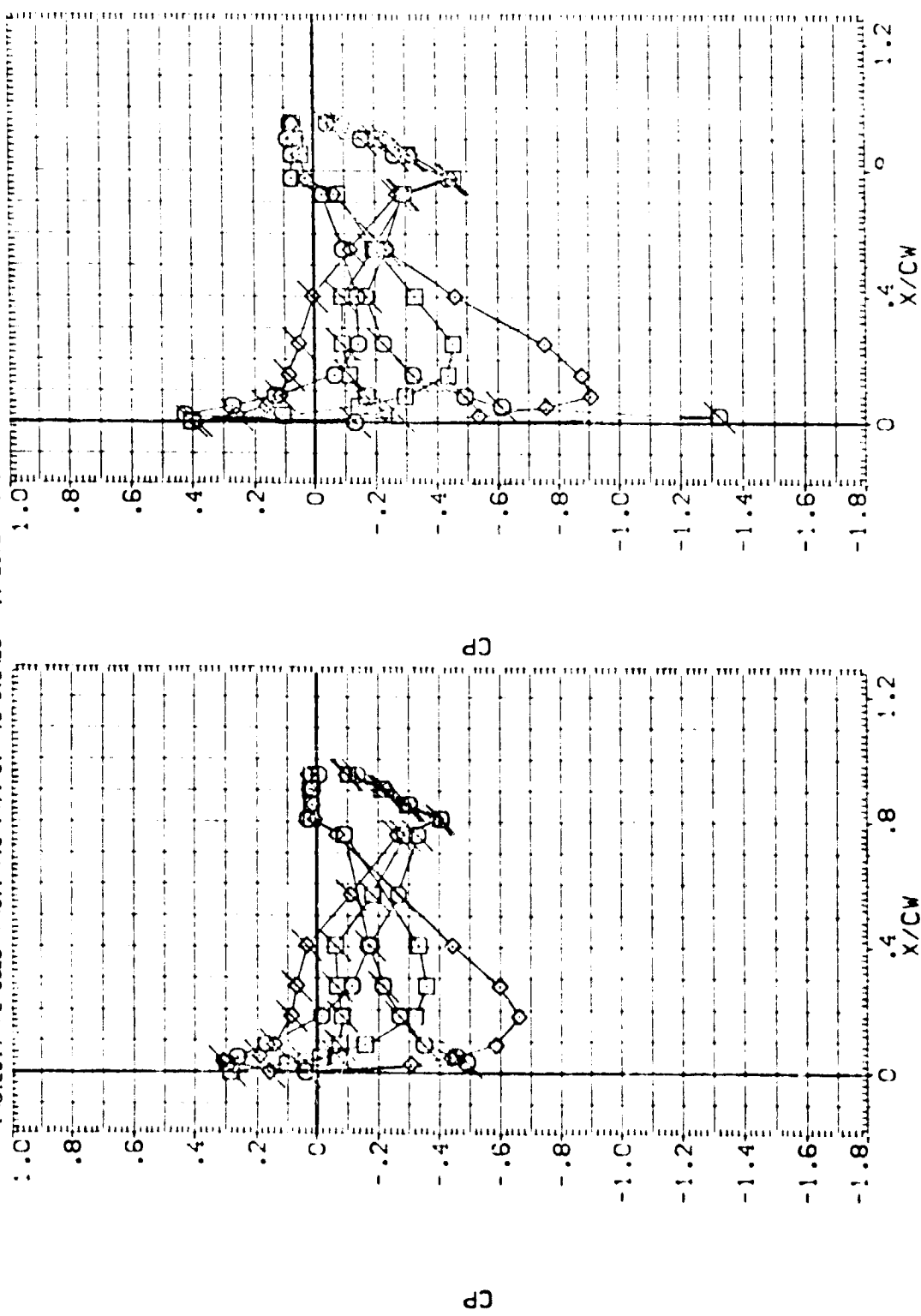


CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

PARAMETRIC VALUES  
 MACH .600  
 RUDDER .000  
 ELEVON .000  
 SPOILER .000

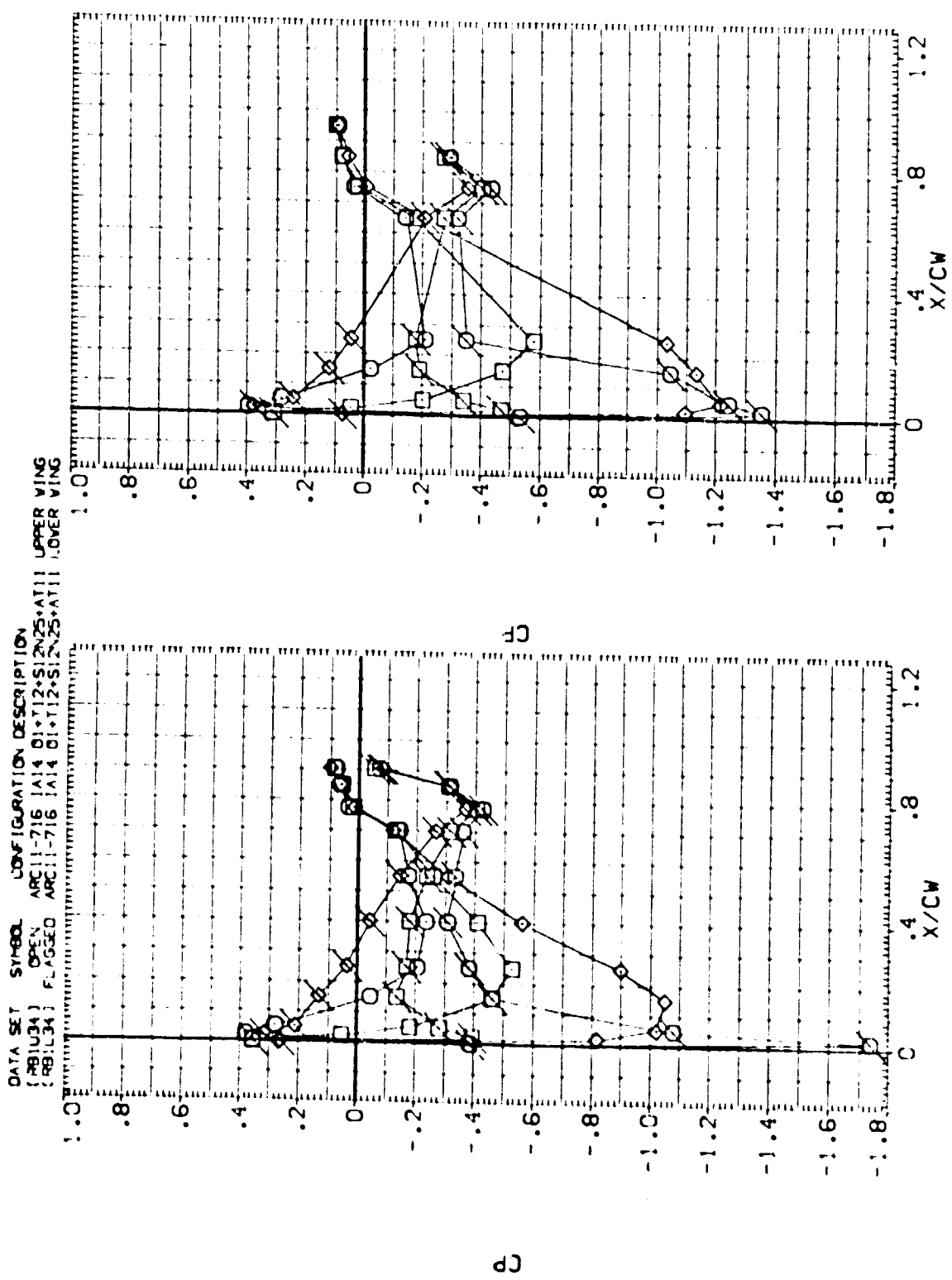
ALPHA 8.010  
 BETA 0.030  
 Y/B 0.427  
 .534  
 7.890

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RB1034) OPEN ARC11-716 [A14 01+T12+S12+25+AT11] UPPER WING  
 (RB1034) FLASSED ARC11-716 [A14 01+T12+S12+25+AT11] LOWER WING



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

SYMBOL	ALPHA0	Y/BV	BETAC	MACH	PARAMETRIC VALUES
○	-0.01C	.673	.030	RUDDER	.600 ELEVON
□	-.31C	.780			.000 SPOILER
◇	7.89C				

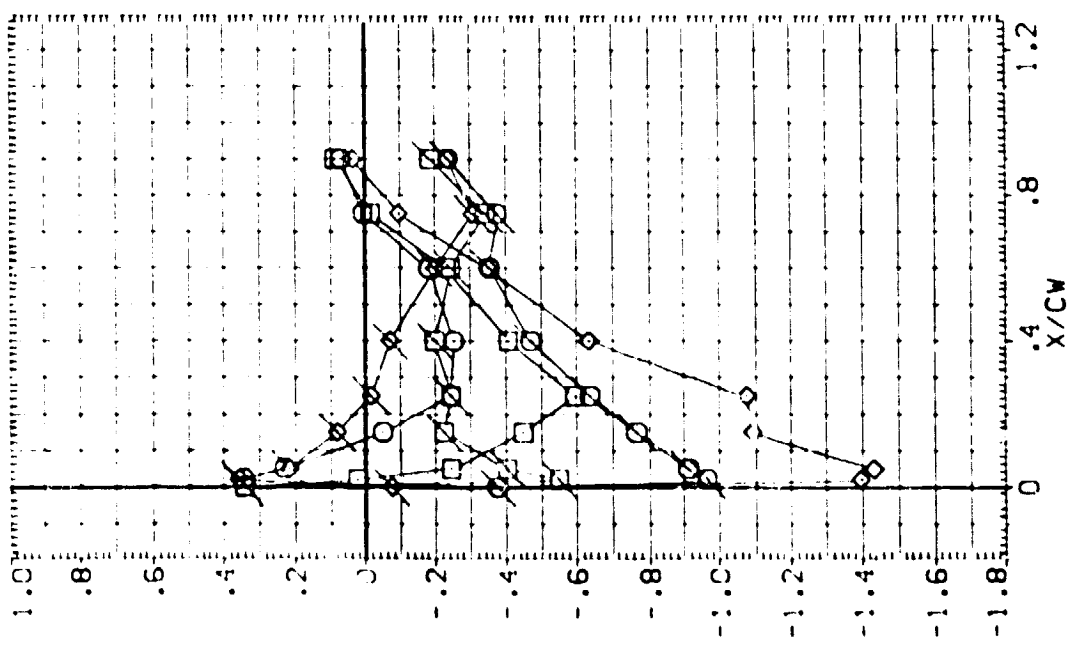


CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

MACH .600  
 RUDDER .000  
 ELEVON .000  
 SPOBRK .000

ALPHAO -8.010  
 Y/BV .007  
 BETAO .030  
 SYMBOL O X  
 7.690

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R9)U34) OX 11 ARC11-716 [A:4 01-112-5:2-25+AT11] UPPER WING  
 (R9)U34) FL+GLD ARC11-716 [A:4 01-112-5:2-25+AT11] LOWER WING

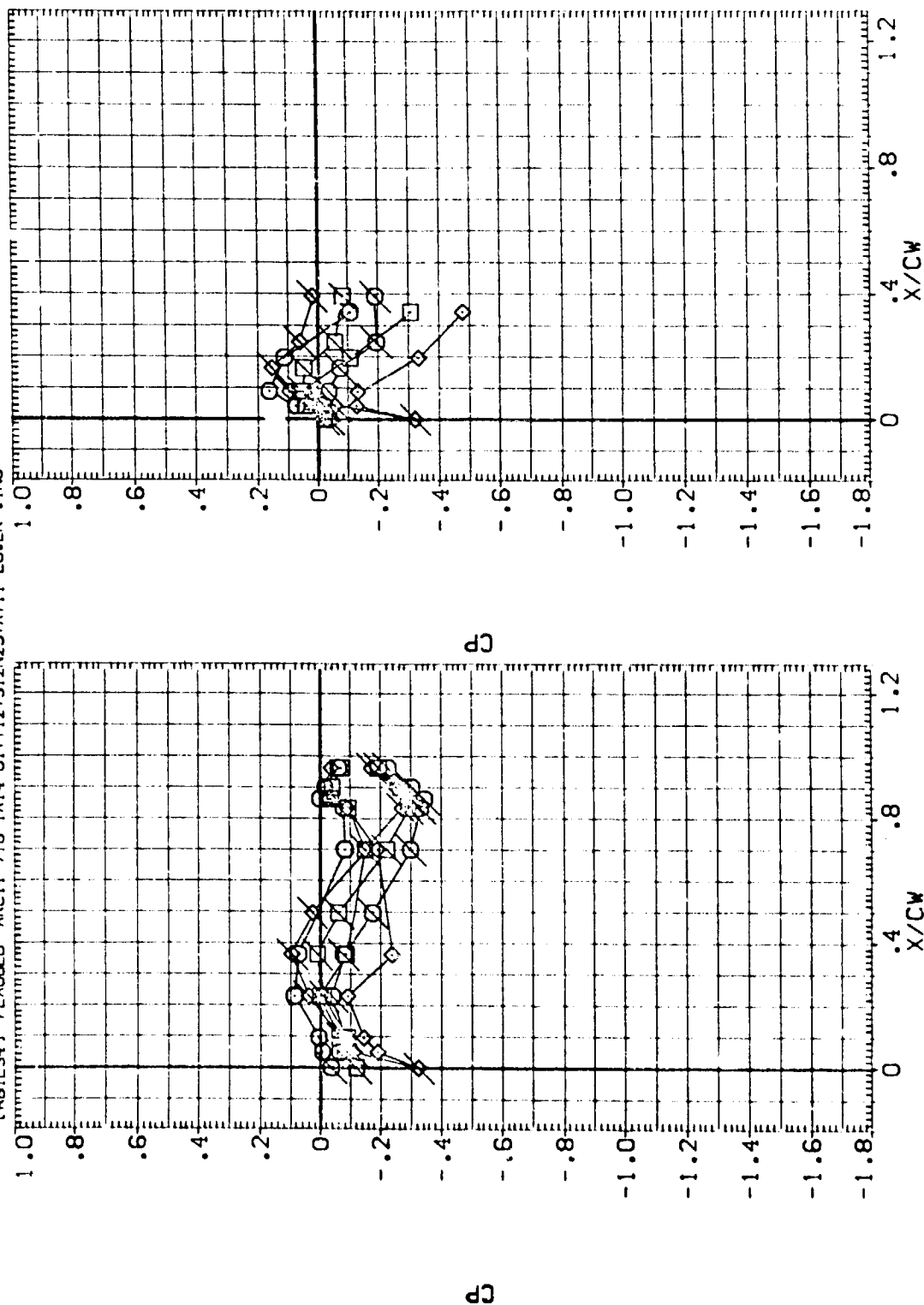


CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

PARAMETRIC VALUES  
 MACH .600 ELEVON .000  
 RUDDER .000

SYMBOL ALPHA Y/BV BETAB  
 ○ .010 .299 4.050  
 □ .310 .364  
 ◇ 7.690

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RB1U34) OPEN ARC11-716 1A14 01+T12+S12N25+AT11 UPPER WING  
 (RB1L34) FLAGGED ARC11-716 1A14 01+T12+S12N25+AT11 LOWER WING

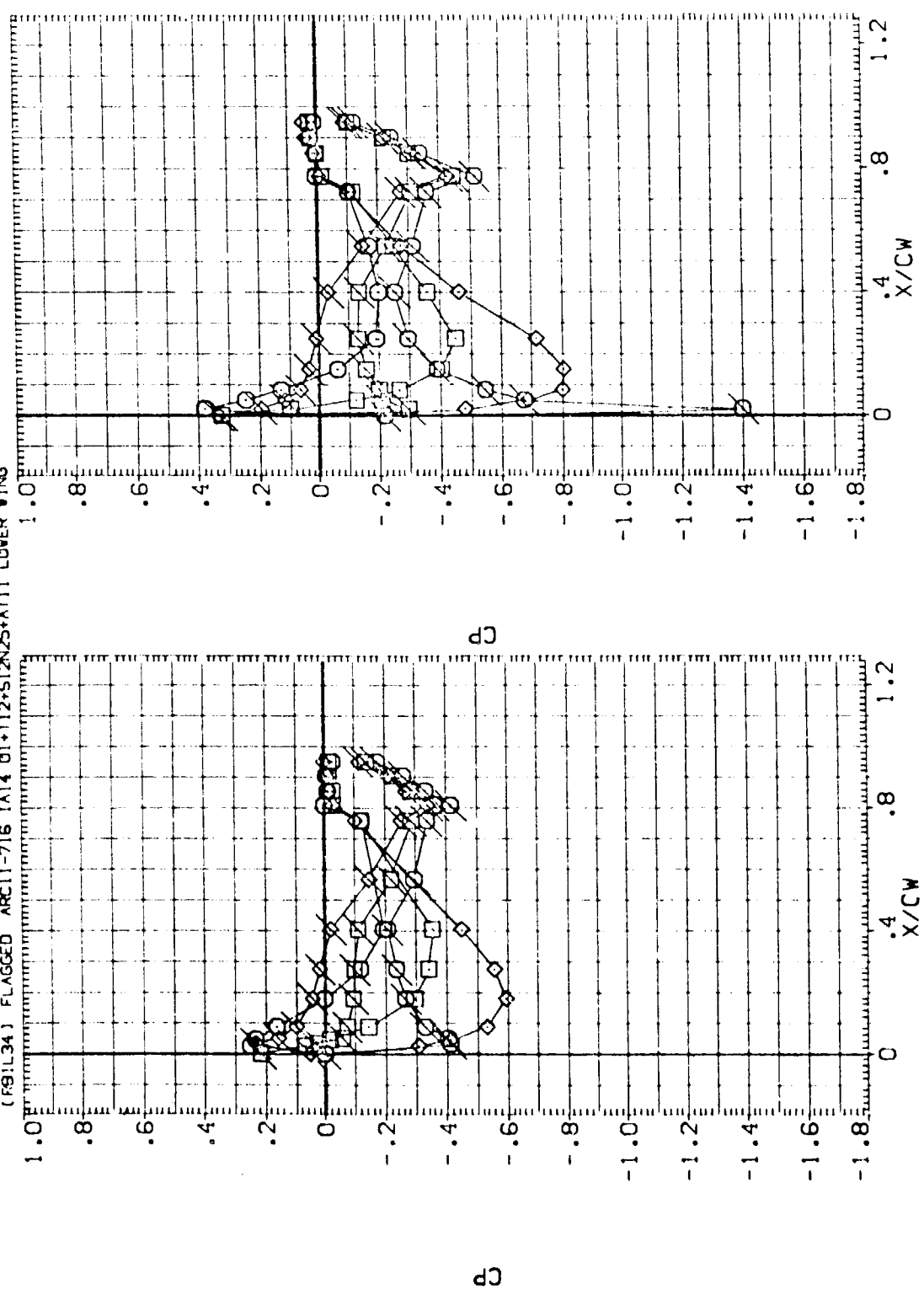


CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

SYMBOL ALPHA0 Y/BV BETAO  
 -8.010 .427 4.050  
 -3.310 .534  
 7.890

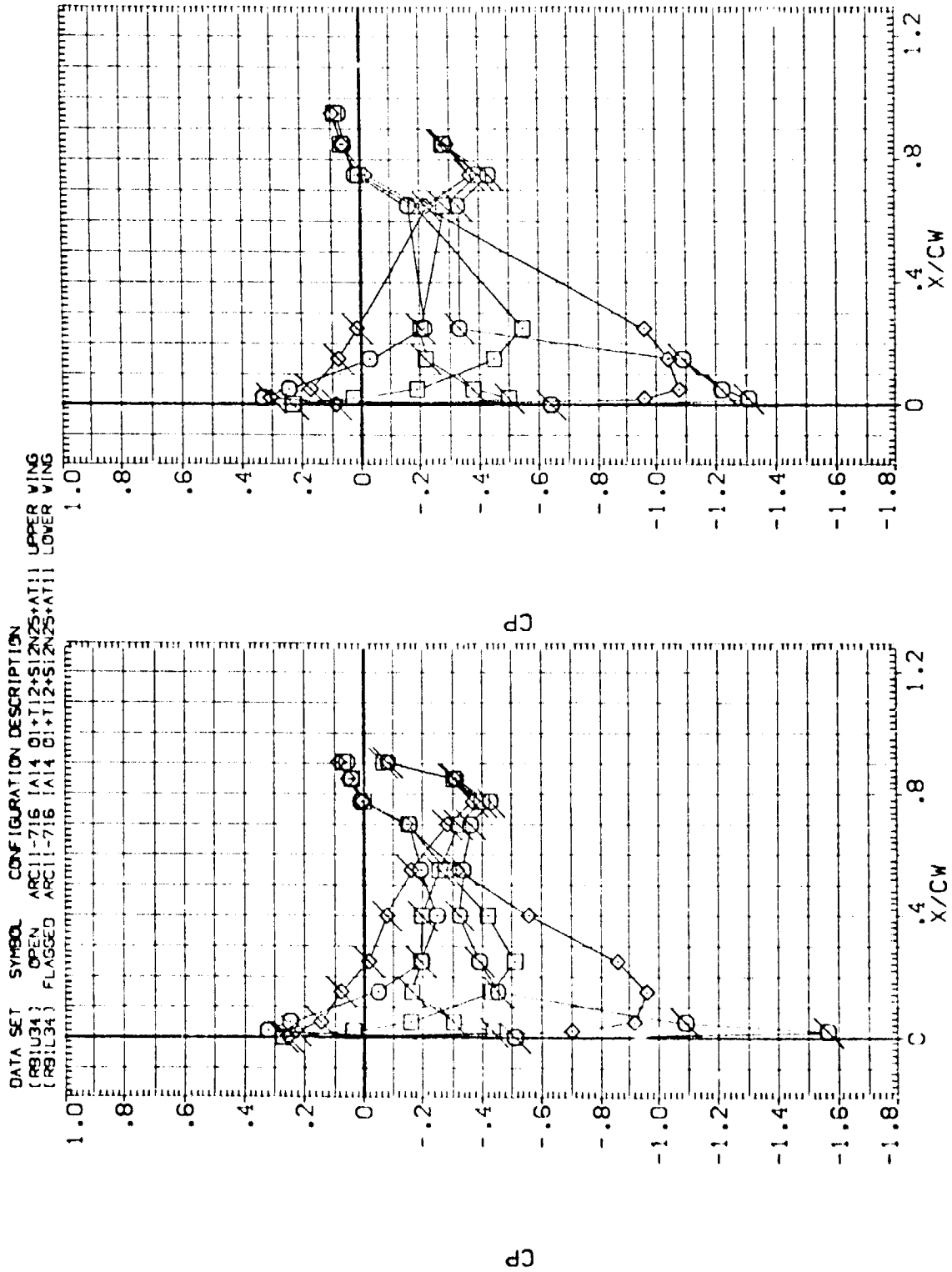
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R31U34) OPEN ARC11-716 [A14 01+112-S12N25+AT11] UPPER WING  
 (R31L34) FLAGGED ARC11-716 [A14 01+112-S12N25+AT11] LOWER WING

PARAMETRIC VALUES  
 MACH .600  
 RUDDER .000  
 ELEVON .000  
 SPOBRK .000



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

SYMBOL	ALPHA	Y/BV	BETA	MACH	PARAMETRIC VALUES
○	-8.010	.673	4.090	RUDDER	.600 ELEVON
□	-3.310	.780			.000 SPOBRK
◇	7.690				



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

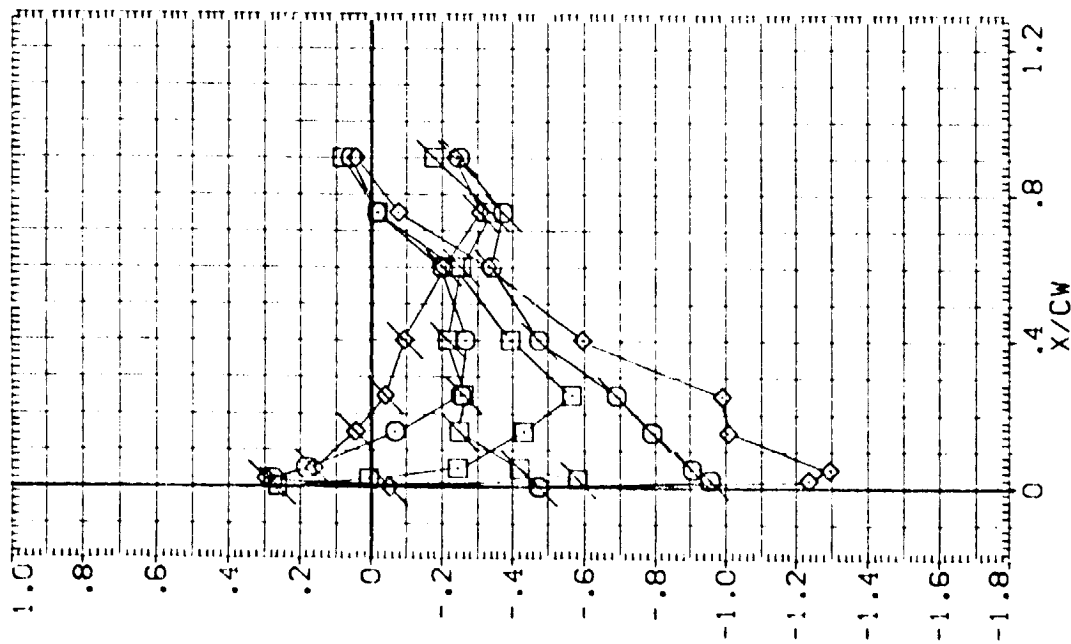


PARAMETRIC VALUES  
 MACH .600  
 RUDDER .000  
 ELEVON .300  
 SPOBRN .300

ALPHA 0  
 BETA 0

Y/BV .887  
 BETA 0  
 4.090  
 -8.010  
 -3.310  
 7.890

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (PB1U34) OPEN ARC11-716 [A14 01+112+S12+25+AT1] UPPER WING  
 (PB1L34) FLASSED ARC11-716 [A14 01+112+S12+25+AT1] LOWER WING



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

SYMBOL

ALPHA  
-8.0:0  
-3.0:0  
7.690

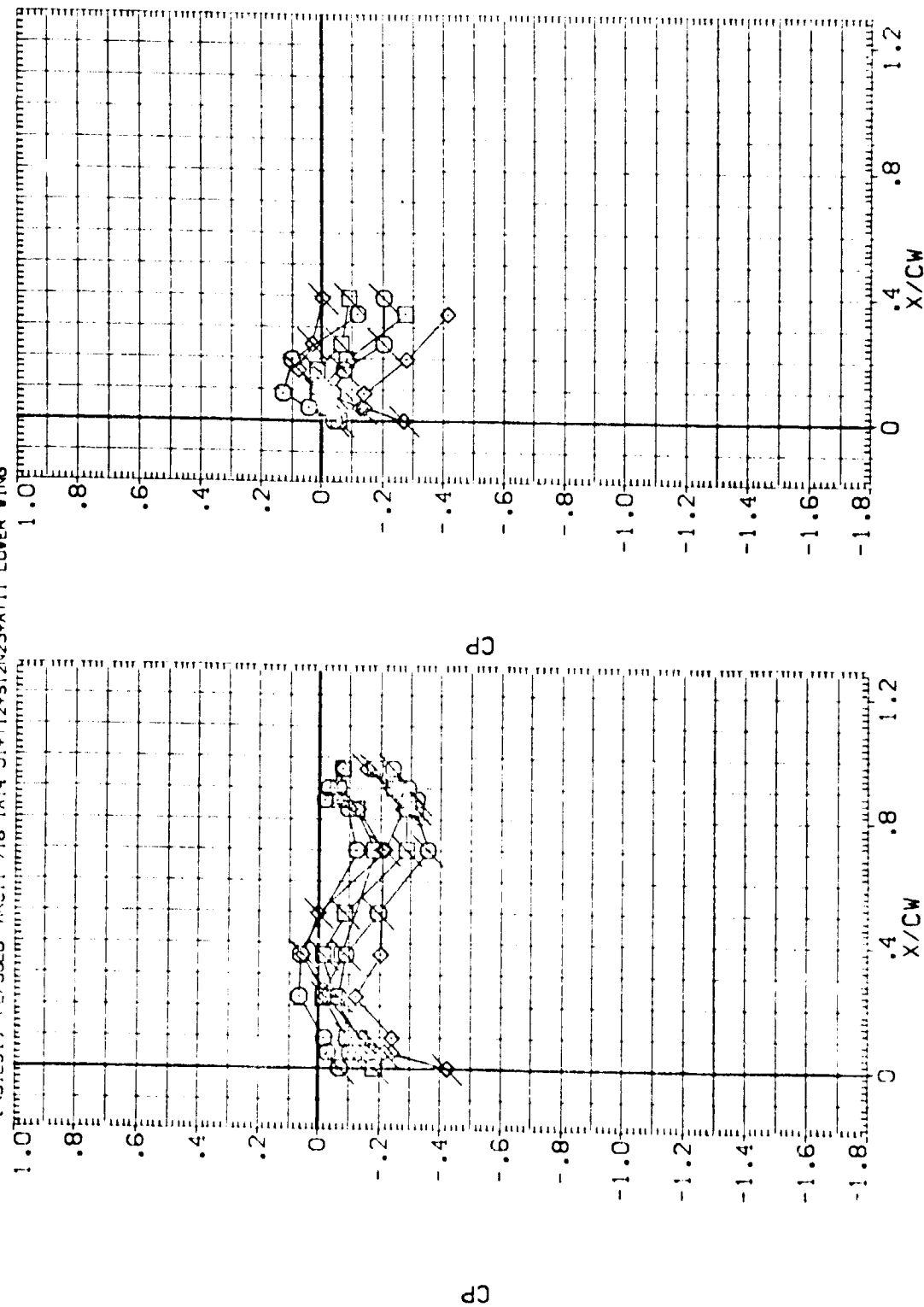
Y/BV  
.299  
.364

BETA  
8.130

MACH  
RUDDER

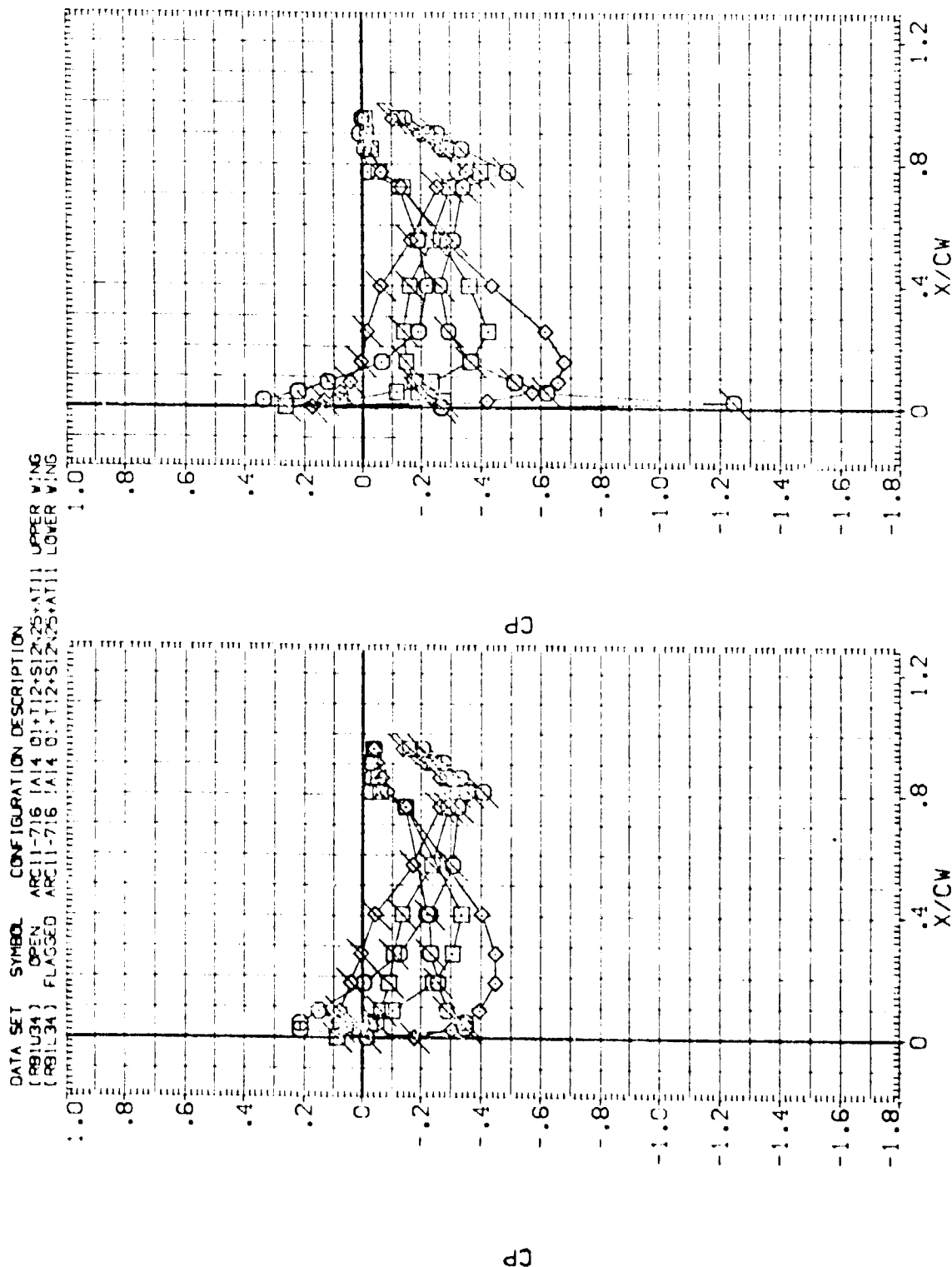
PARAMETRIC VALUES  
.600  
.000  
ELEVON  
SPDRK  
.000  
.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
(R81U34) OPEN ARC11-716 [A14 01+T12+S12+25+AT1] UPPER WING  
(R81U34) FLAGGED ARC11-716 [A14 01+T12+S12+25+AT1] LOWER WING



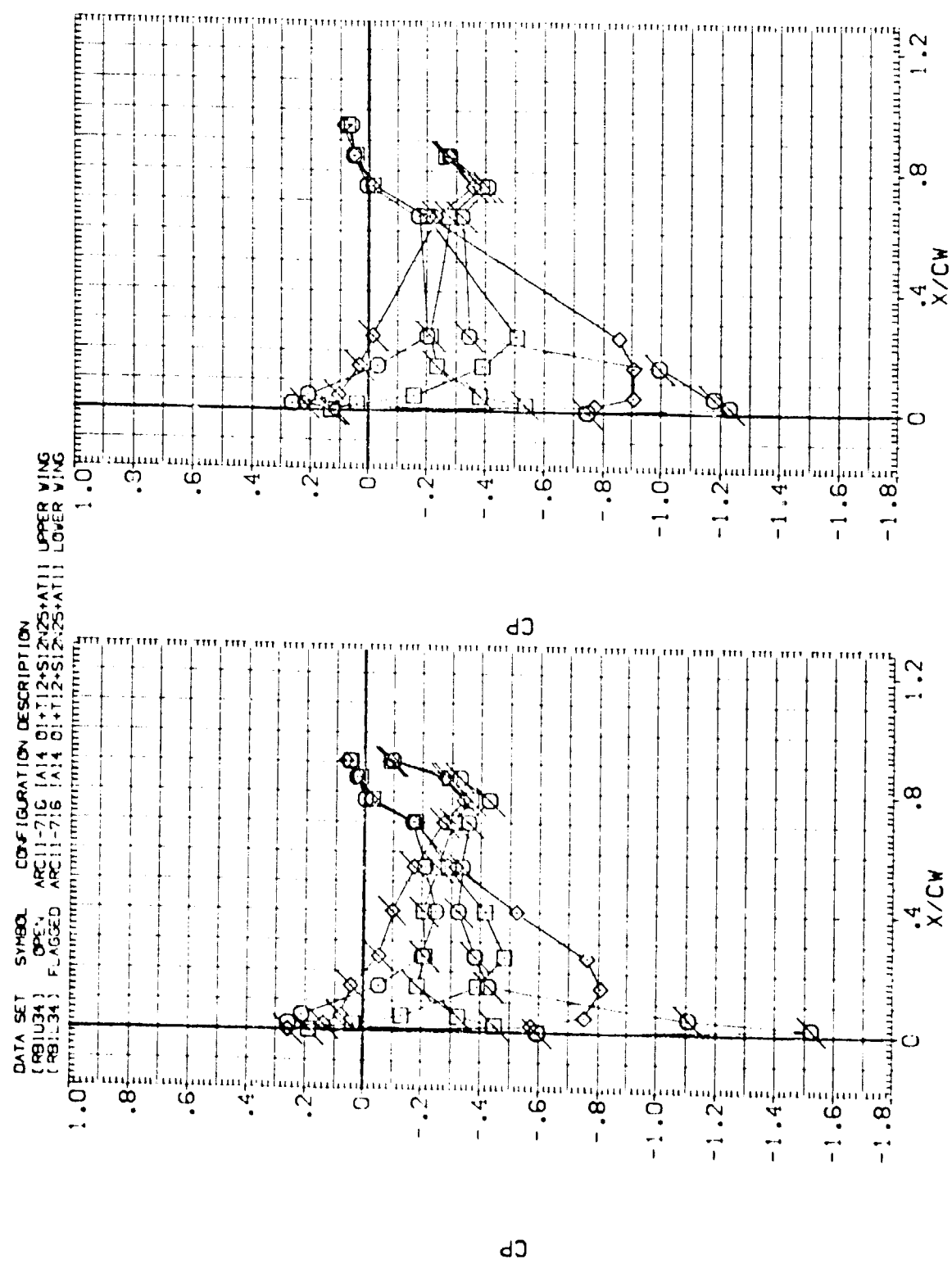
CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

SYMBOL	ALPHA	Y/BV	BETA	MACH	PARAMETRIC VALUES
○	-8.010	.427	8.130	RUDDER	.600 ELEVON .000
□	-3.10	.534			.000 SPDBRK .000
◇	7.890				



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

<b>SYMBOL</b>	<b>ALPHA</b>	<b>Y/BV</b>	<b>BETA</b>	<b>MACH</b>	<b>PARAMETRIC VALUES</b>
○	-8.010	.673	6.100	RUDDER	.600 ELEVON
◇	-3.10	.780			.000 SPOILER
	7.890				



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

SYMBOL  
 ○  
 □  
 ◇

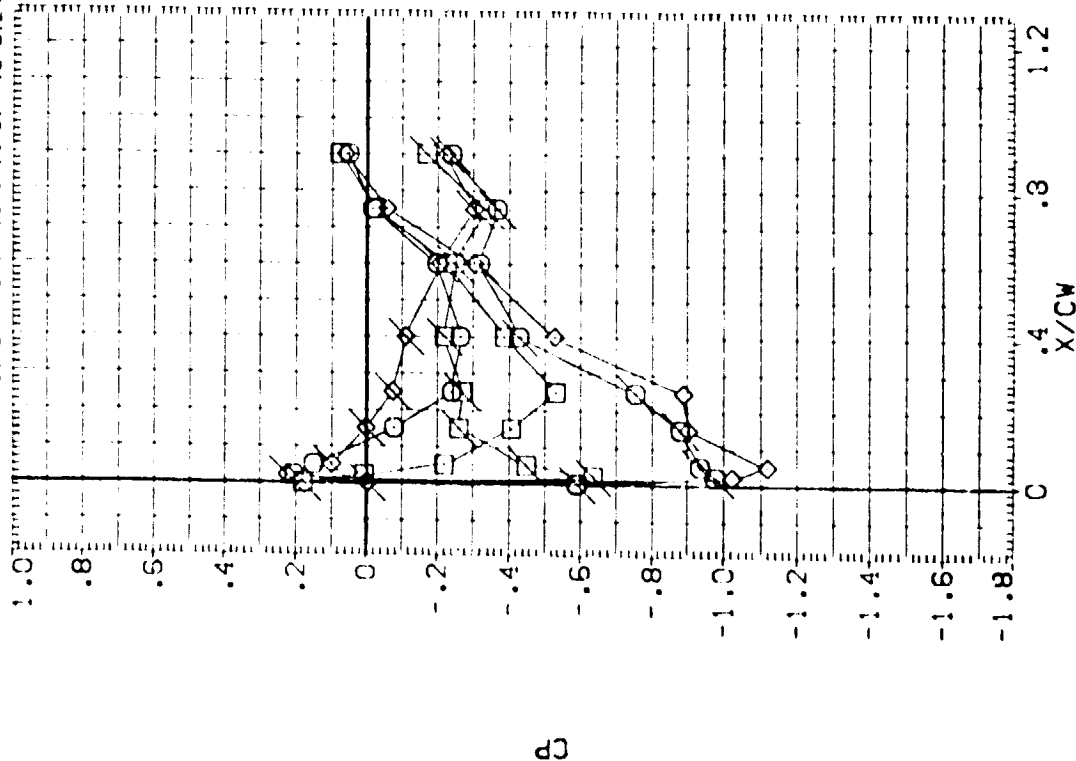
ALPHA0  
 -8.010  
 -7.310  
 7.690

Y/BA  
 .887

BETA0  
 8.130

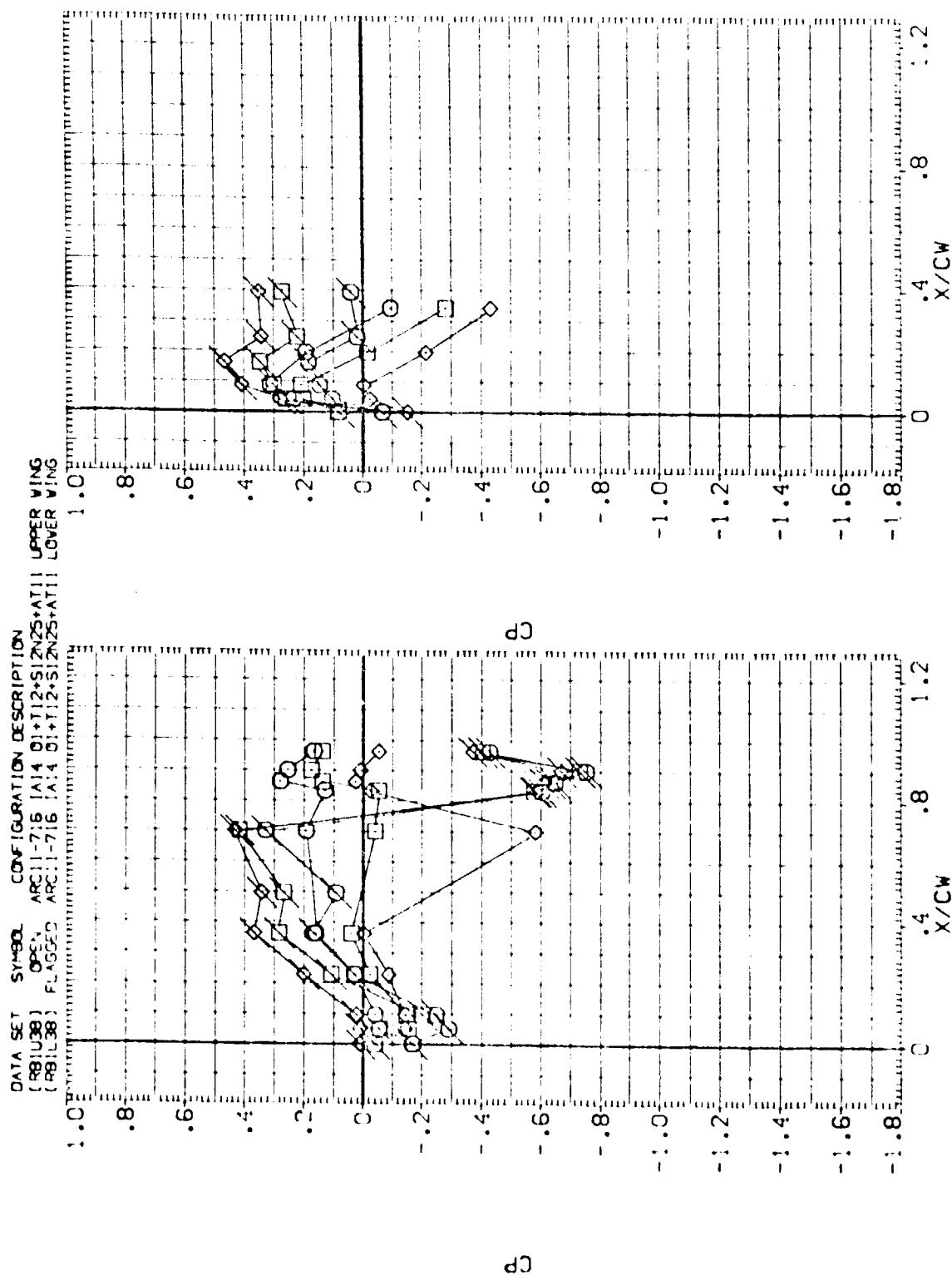
PARAMETRIC VALUES  
 MACH .500  
 RUDDER .000  
 ELEVON .000  
 SPOBRK .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RB1J34) OPEN ARC11-7:6 [A14 G1+T12-S12N25+AT1] UPPER WING  
 (RB1J34) FLAGGED ARC11-7:6 [A14 G1+T12-S12N25+AT1] LOWER WING



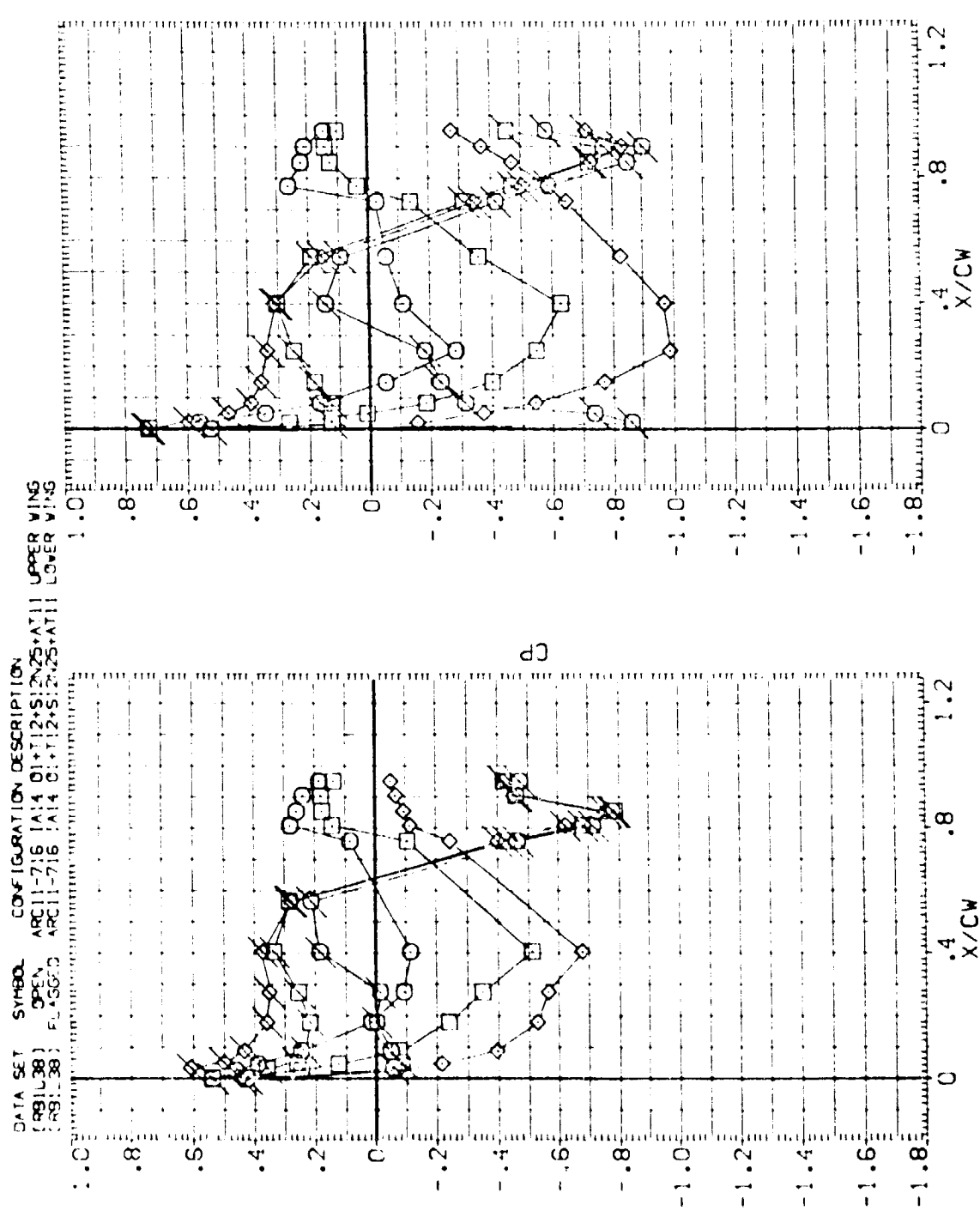
CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

SYMBOL	ALPHA	Y/BV	BETA	MACH	PARAMETRIC VALUES
○	-8.080	.299	-8.020	RUDDER	1.050 ELEVON
◇	-3.10	.364			.000 SPOON
	7.930				



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

SYMBOL	ALPHA	Y/B	BETA	MACH	PARAMETRIC VALUES
○	-8.080	.427	-8.020	RUDDER	1.050 ELEVON
□	-3.10	.534			.000 SPOBRN
◇	7.930				.000

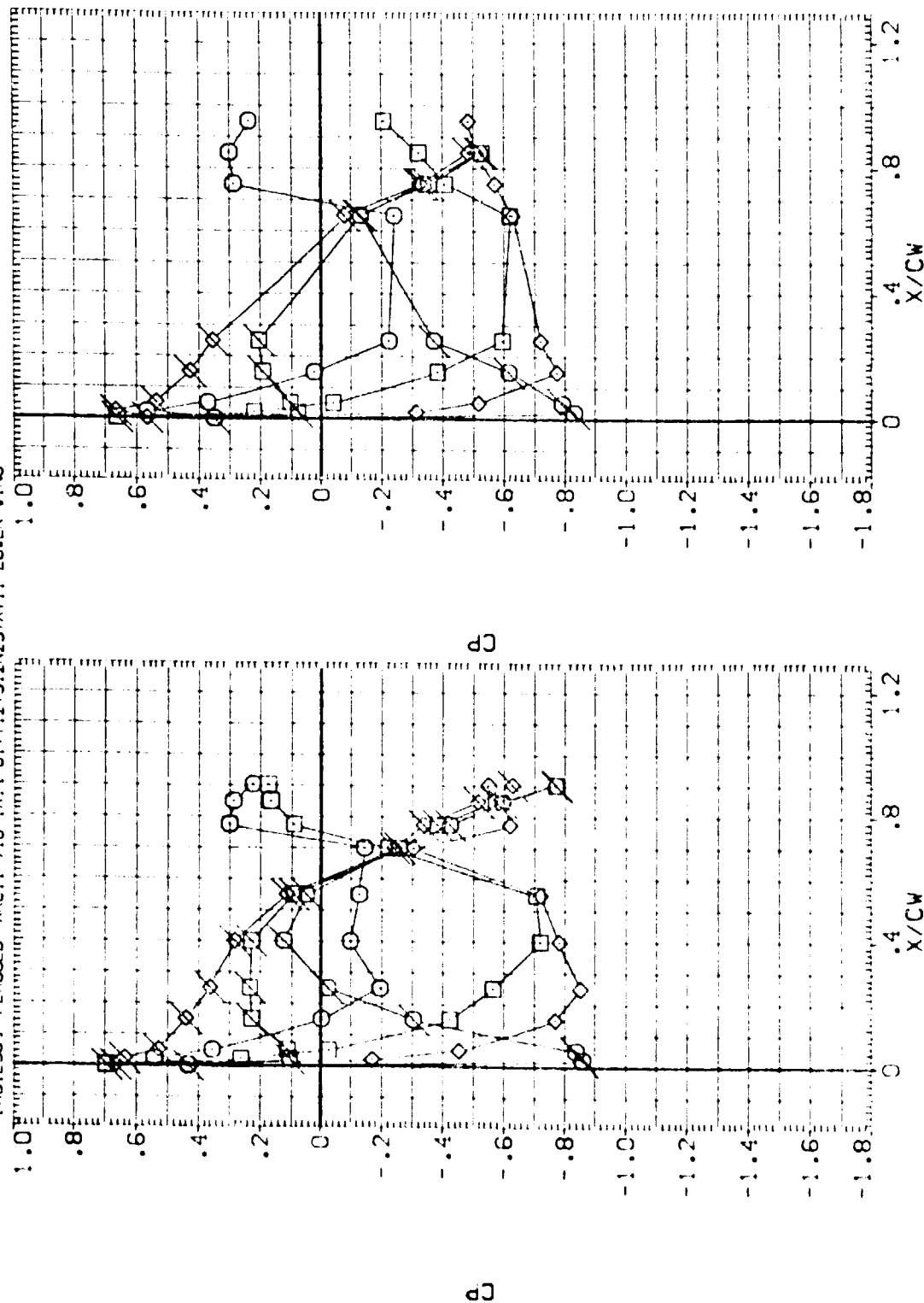


CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

PARAMETRIC VALUES  
 MACH 1.050 ELEVON .000  
 RUDDER .000 SPOBRK .000

SYMBOL ALPHA Y/BV BETAD  
 O -8.080 .673 -8.020  
 □ -3.310 .780  
 ◇ 7.93C

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R31L38) OPEN ARC11-716 1A14 01+112+512N25+AT11 UPPER WING  
 (R31L38) FLAGGED ARC11-716 1A14 01+112+512N25+AT11 LOWER WING



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

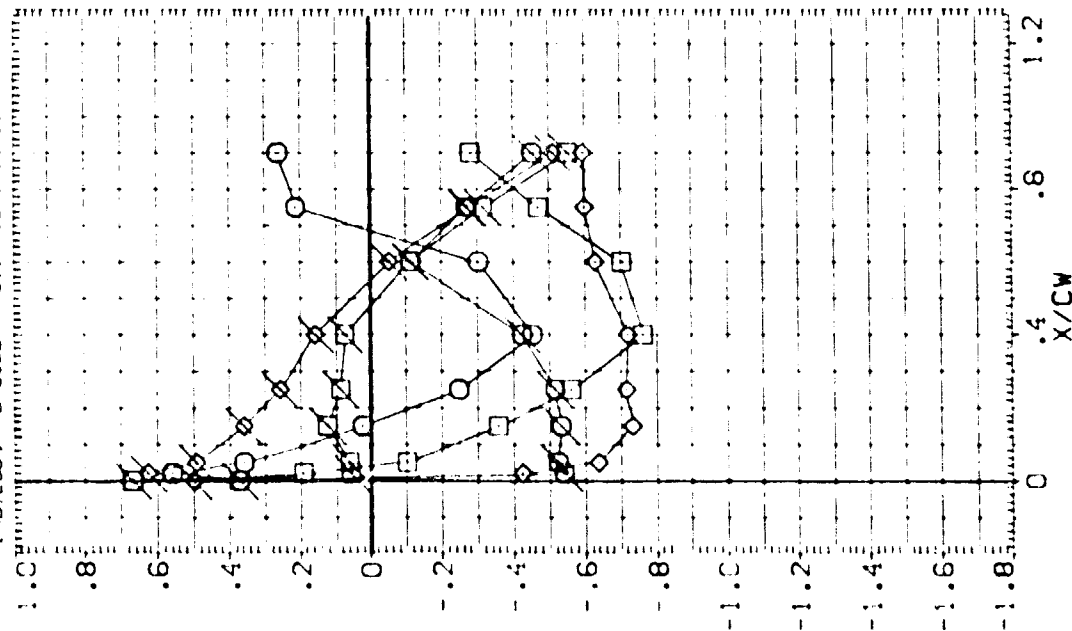


SYMBOL ALPHA  
 O -8.080  
 X -3.10  
 D 7.930

Y/B\* .887  
 BETAS -8.020

PARAMETRIC VALUES  
 MACH 1.050  
 ELEVON .000  
 RUDDER .000  
 SPEED .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R81U38) OPEN ARC11-7:5 (A14 0:112+S12:25+AT11) UPPER WING  
 (R81U38) FLAGGED ARC11-7:5 (A14 0:112+S12:25+AT11) LOWER WING



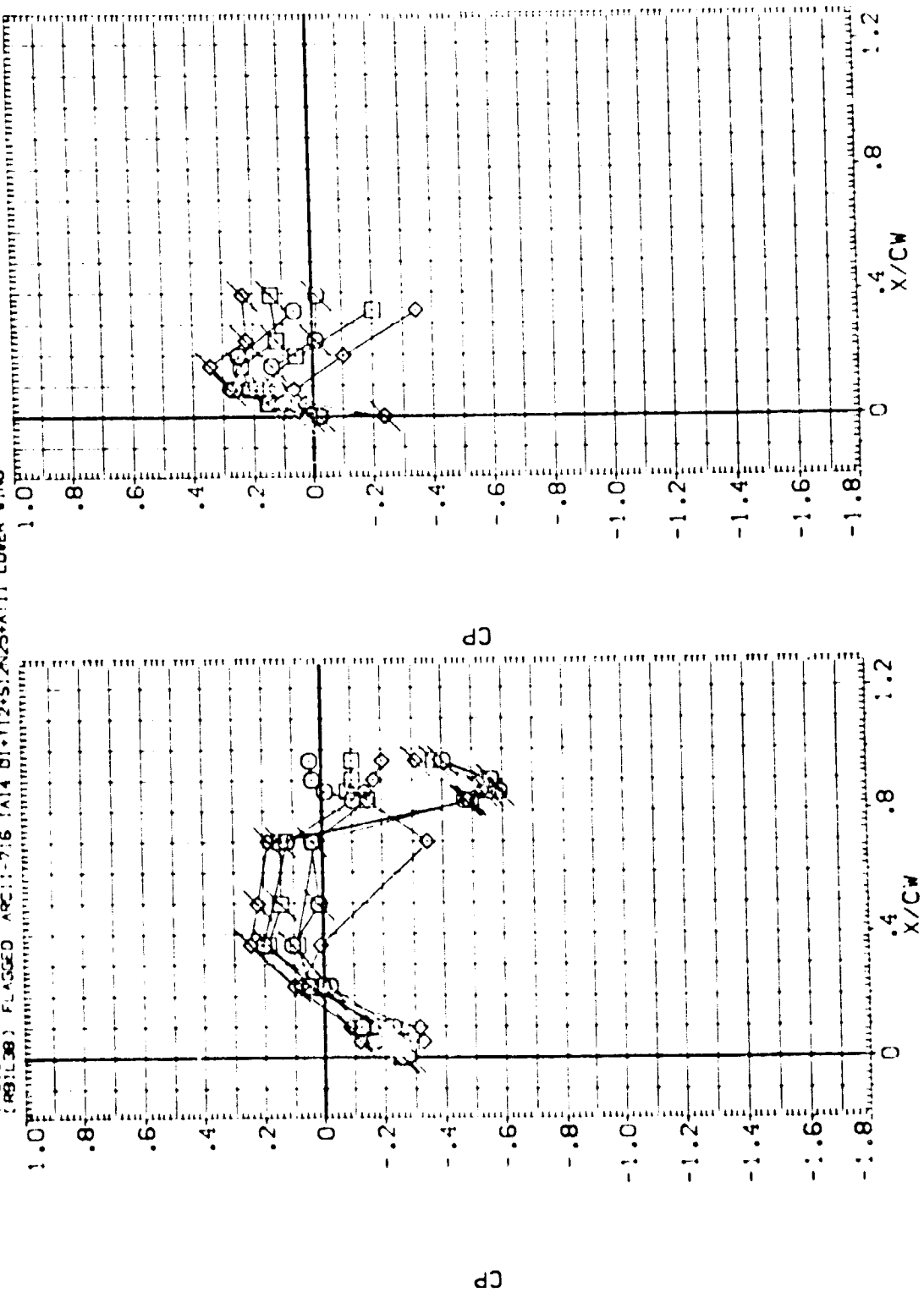
83

CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

PARAMETRIC VALUES  
 MACH 1.050 ELEVON .000  
 RUDDER .000

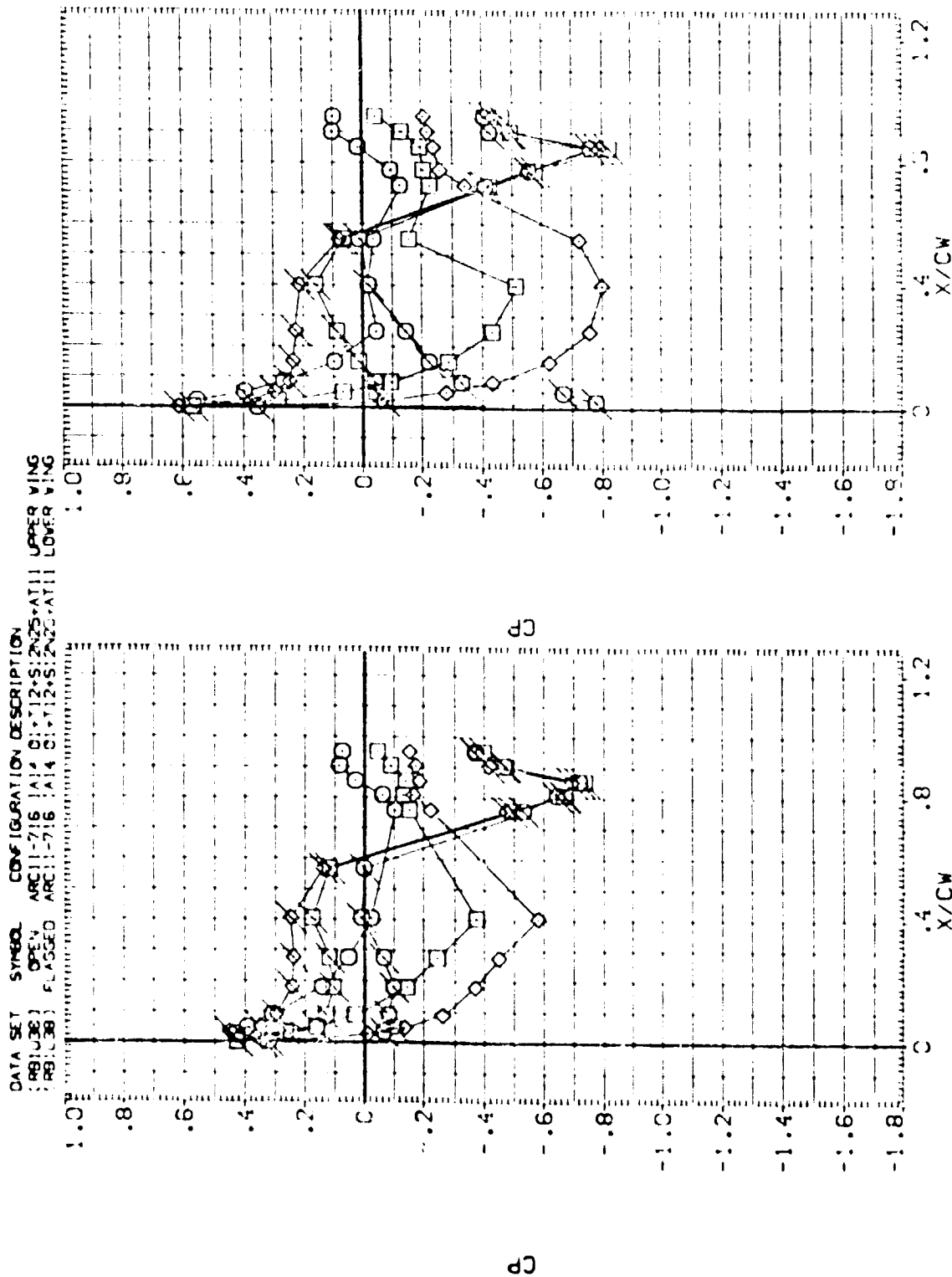
SYMBOL ALPHA<sub>0</sub> Y/BV BETA<sub>0</sub>  
 ○ -8.080 .299 .030  
 □ -3.310 .364  
 ◇ 7.930

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (781038) OPEN ARC11-716 [A14 01-T12-S12-25-AT1] UPPER WING  
 (891138) FLAGGED ARC11-716 [A14 01-T12-S12-25-AT1] LOWER WING



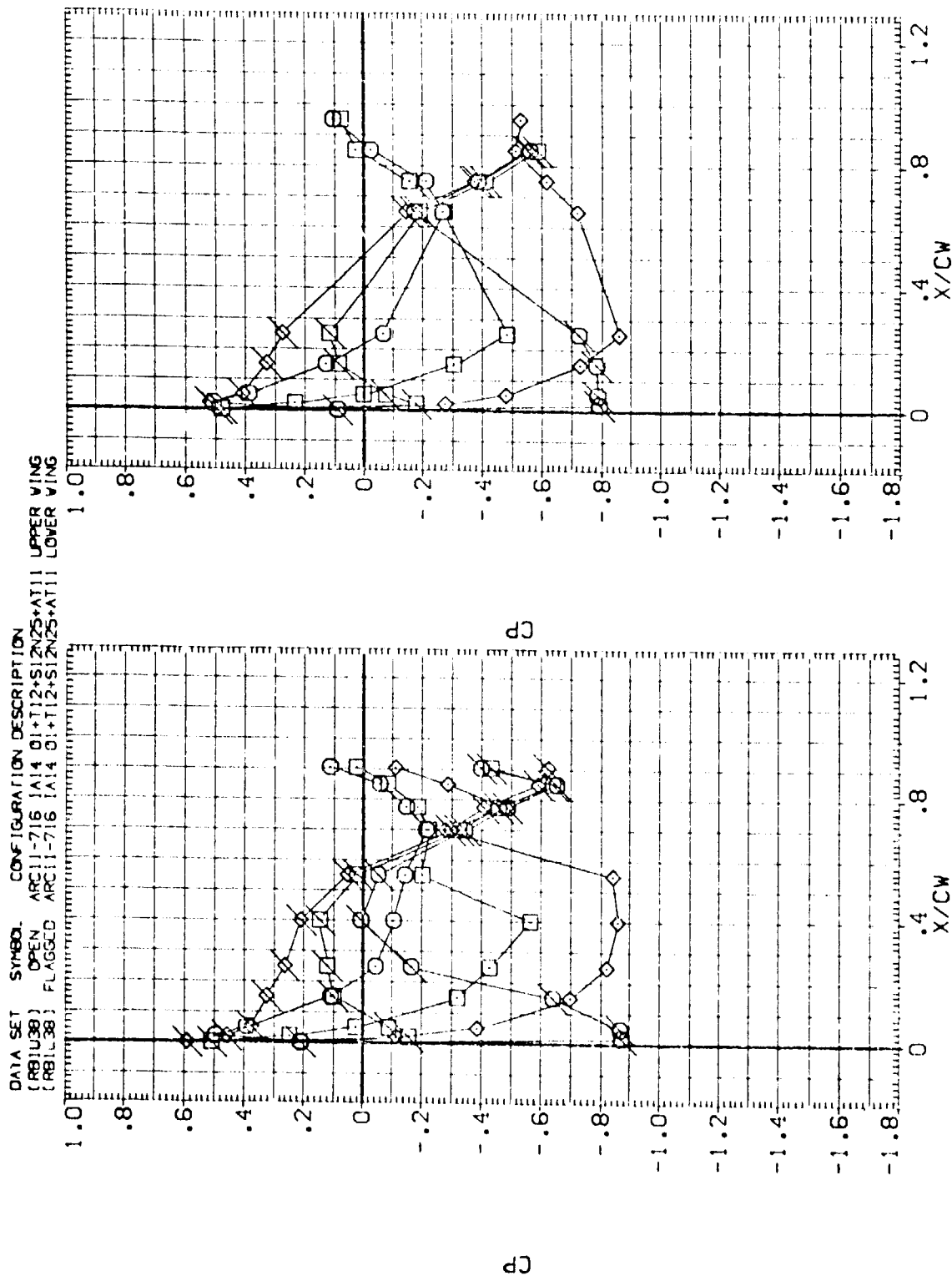
CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

SYMBOL	ALPHA	Y/BV	BETAG	MACH	PARAMETRIC VALUES
□	-8.000	.427	.030	RUDDER	1.050
○	-3.00	.534			ELEVON
◇	7.930				SPDBRK
					.000
					.000



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

SYMBOL	ALPHA	Y/BV	BETA	MACH	PARAMETRIC VALUES
○	-8.080	.673	.030	RUDDER	1.050 ELEVON .000
□	-.310	.780			.000 SPEED .000
◇	7.930				

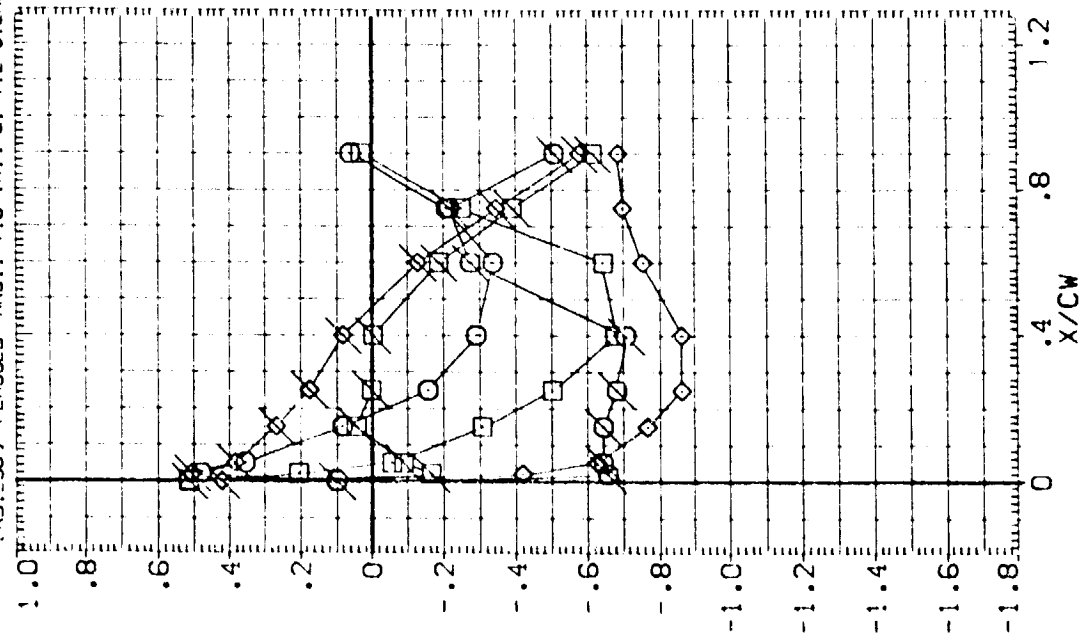


CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

PARAMETRIC VALUES  
 MACH 1.050  
 RUDDER .000  
 ELEVON .000  
 SPOBRK .000

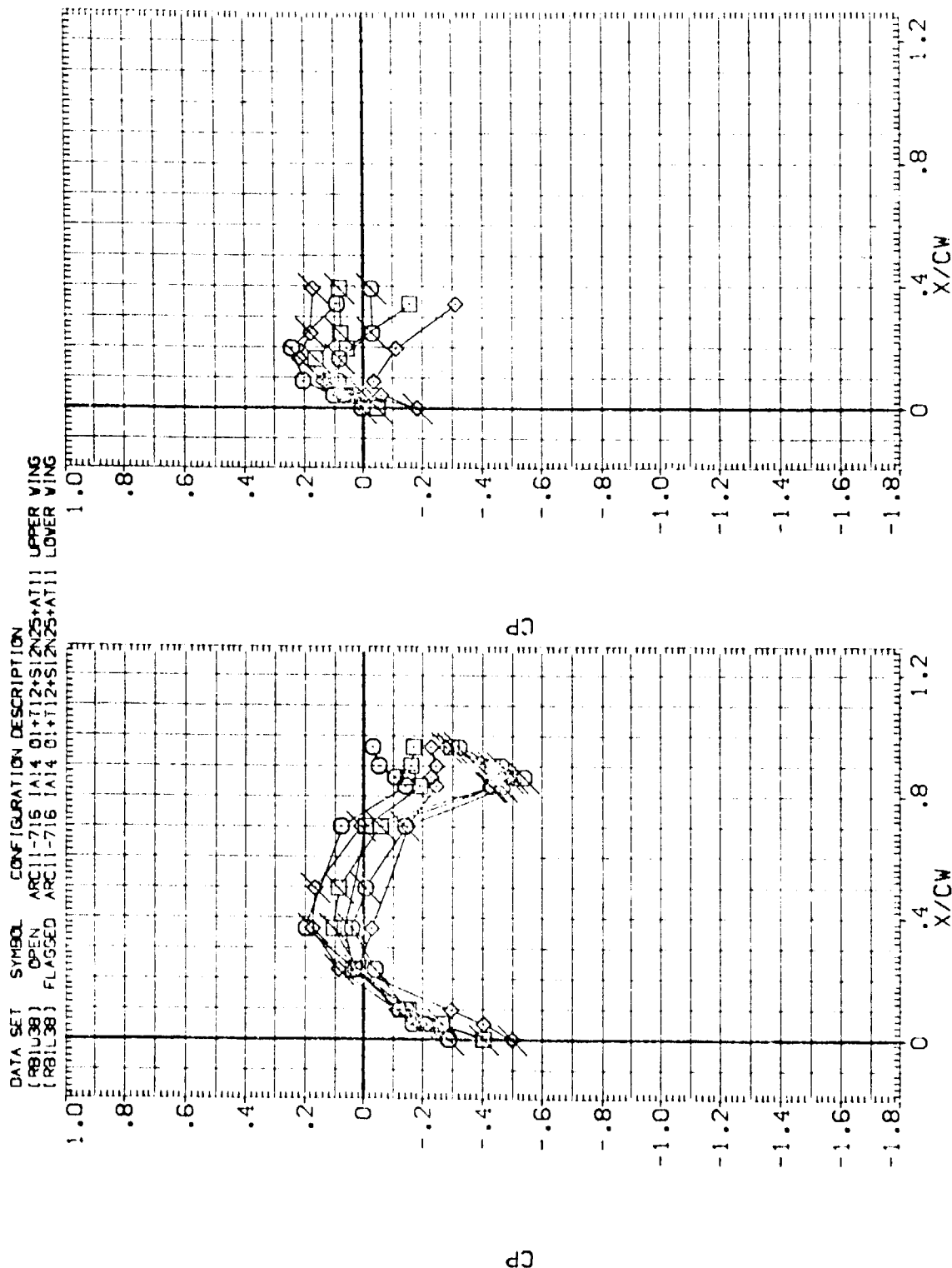
SYMBOL ALPHA0 Y/BV BETA0  
 O -8.080 .887 .030  
 [ ] -.310  
 ◇ 7.930

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R91U38) OPEN ARC11-716 [A14 01+T112+S12N25+AT11] UPPER WING  
 (R91U38) FLAGGED ARC11-716 [A14 01+T112+S12N25+AT11] LOWER WING



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

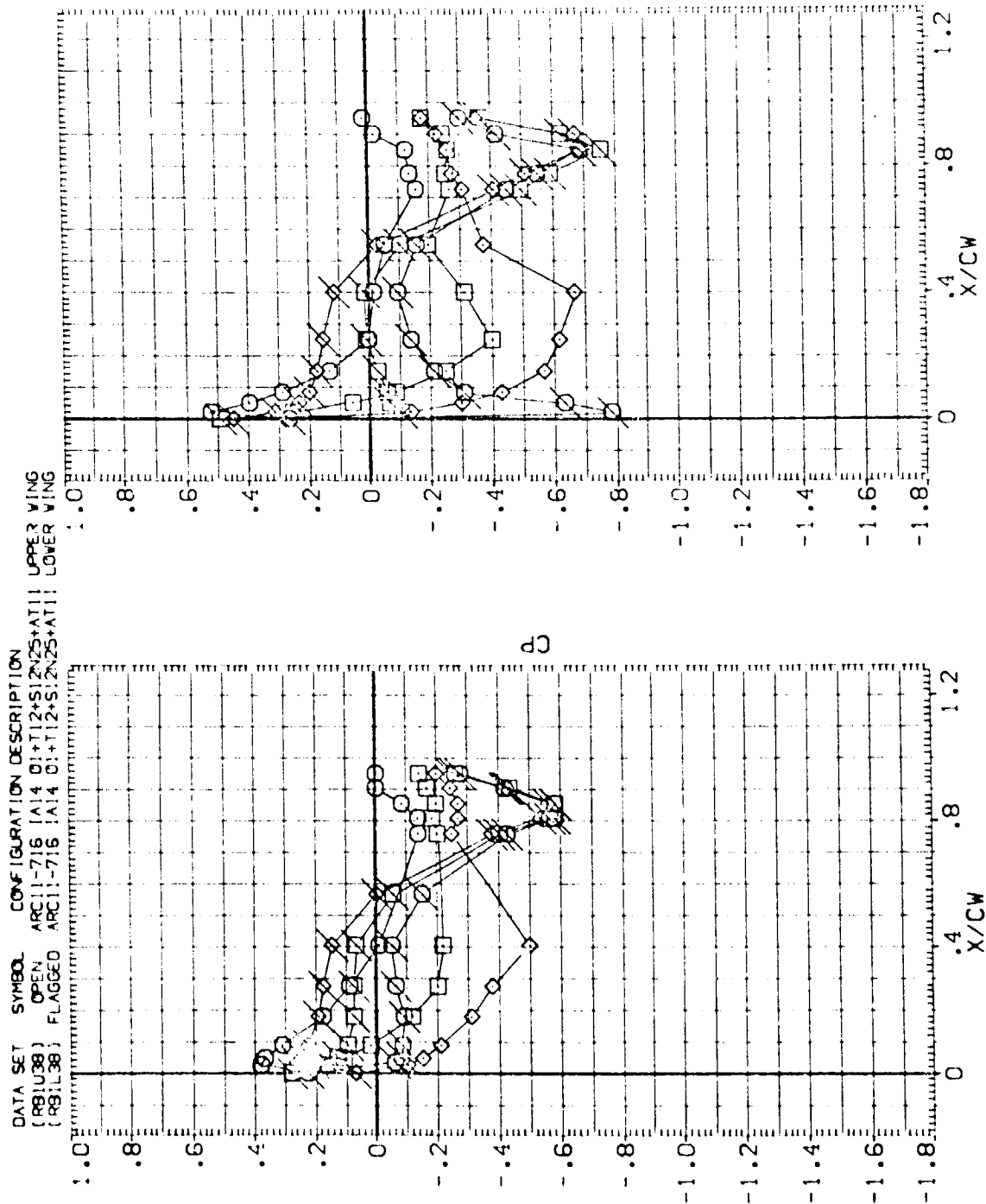
SYMBOL	ALPHA	Y/BV	BETA	MACH	PARAMETRIC VALUES
○	-8.080	.299	4.120	RUDDER	1.050 ELEVON .000
□	-3.10	.364			.000 SPOBRK .000
◇	7.930				



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

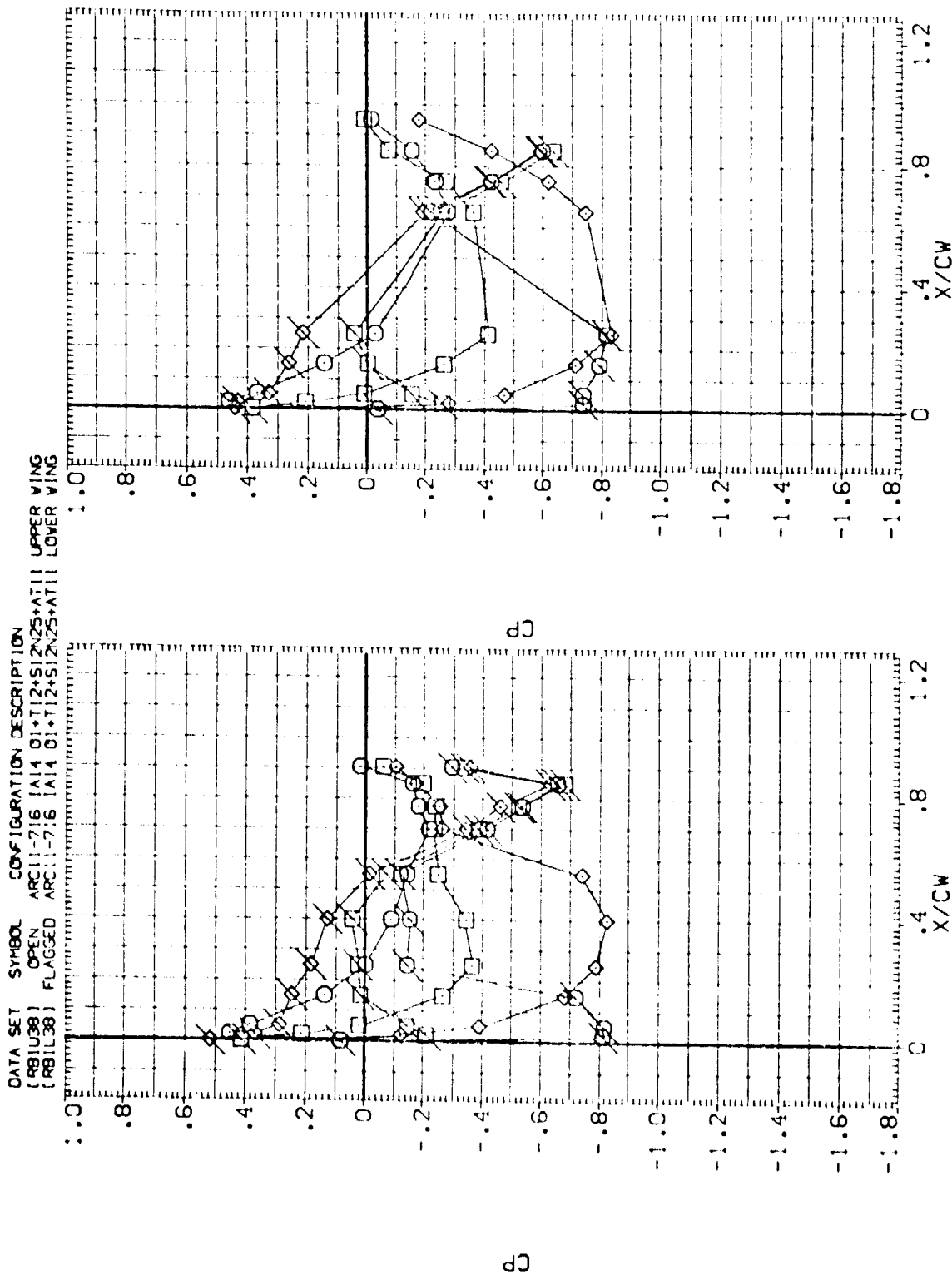
PARAMETRIC VALUES  
 MACH 1.050 ELEVON .000  
 RUDDER .000

ALPHA 8.080  
 Y/BV .427  
 BETA 4.120  
 .534  
 7.930



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

SYMBOL	ALPHA	Y/BV	BETA	MACH	PARAMETRIC VALUES
○	-8.080	.573	4.120	RUDDER	1.050 ELEVON .000
□	-3.310	.780			.000 SPOBRK .000
◇	7.930				



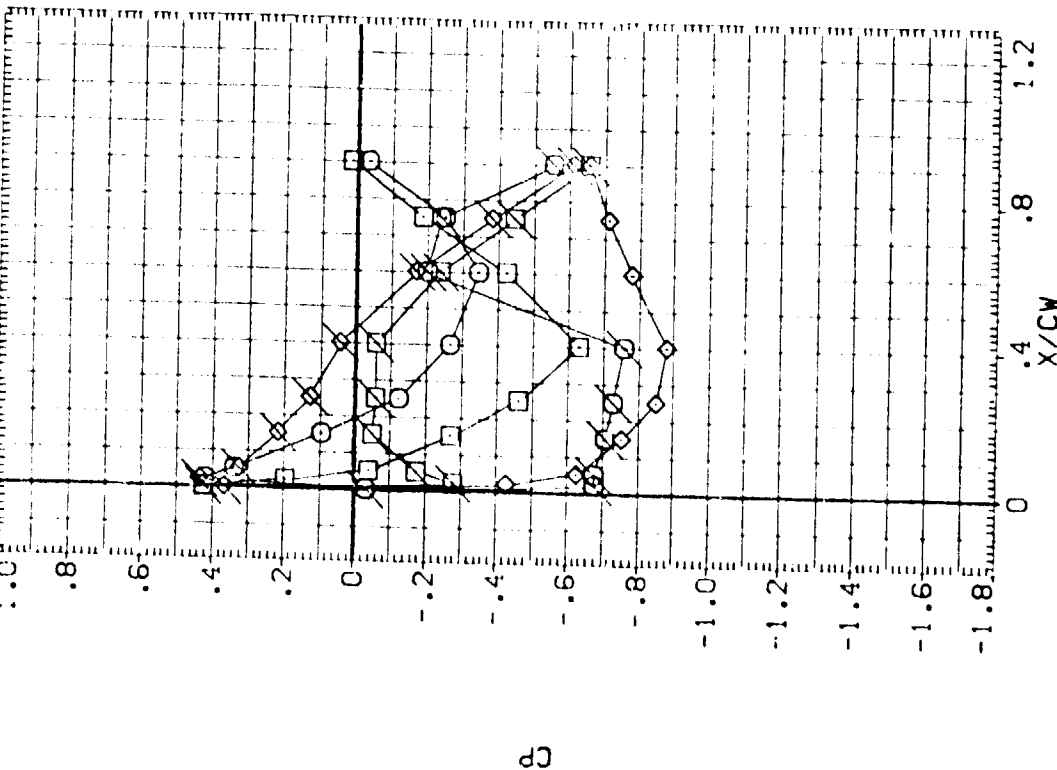
CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES



SYMBOL ALPHA0 Y/BV BETA0  
 -8.080 .887 4.120  
 -3.10  
 7.930

PARAMETRIC VALUES  
 MACH 1.050 ELEVON .000  
 RUDDER .000 SPOILER .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R8) (U38) OPEN ARC: -7.16 [A:4 0] + [1:2+S] 2N25+AT [1] UPPER WING  
 (R8) (L38) FLAGGED ARC: -7.16 [A:4 0] + [1:2+S] 2N25+AT [1] LOWER WING

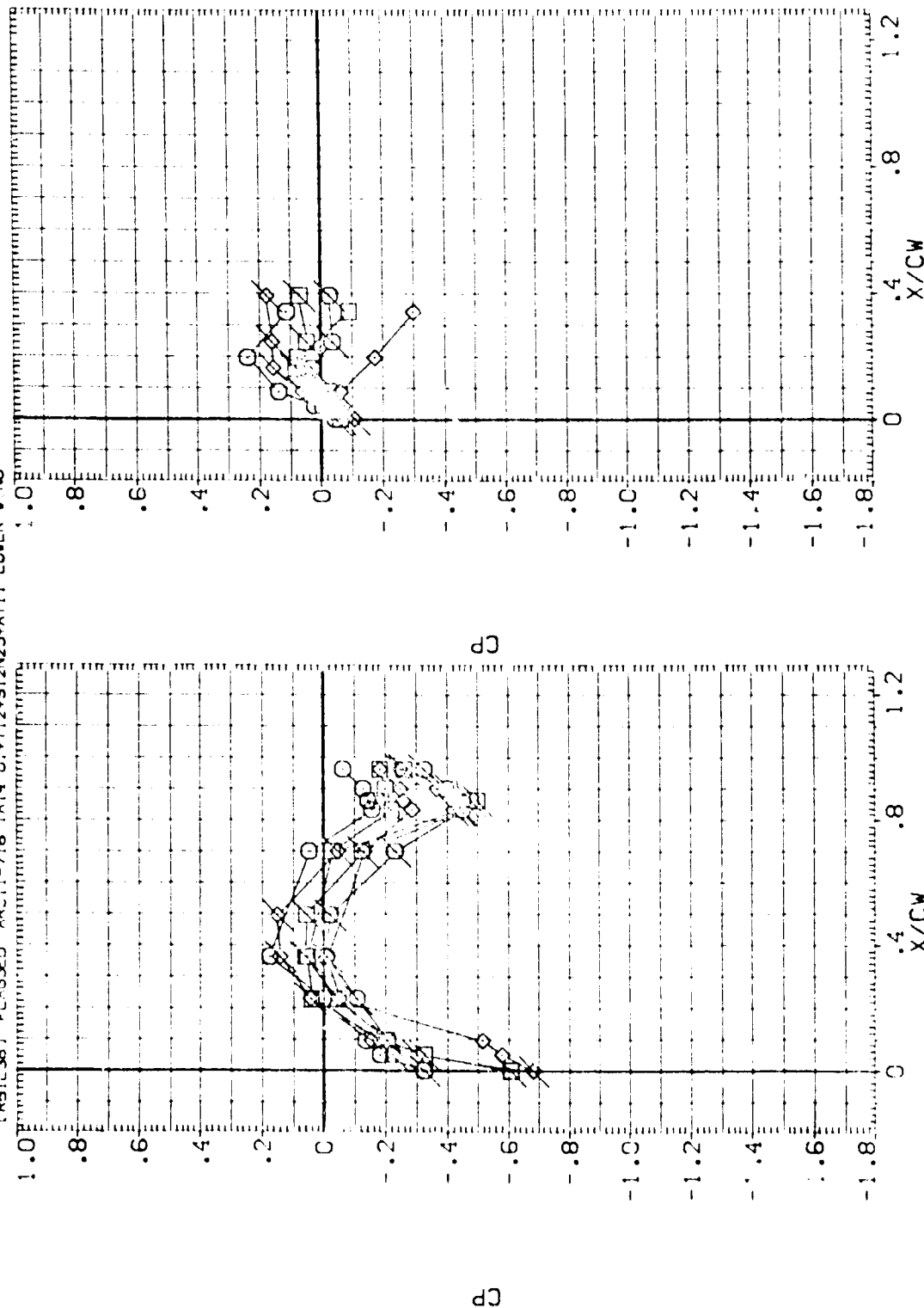


CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

PARAMETRIC VALUES  
 MACH 1.050 ELEVON .000  
 RUDDER .000 SPOILER .000

SYMBOL ALPHA0 Y/BV BETA0  
 O -8.080 .299 8.160  
 □ -3.10 .364  
 ◇ 7.930

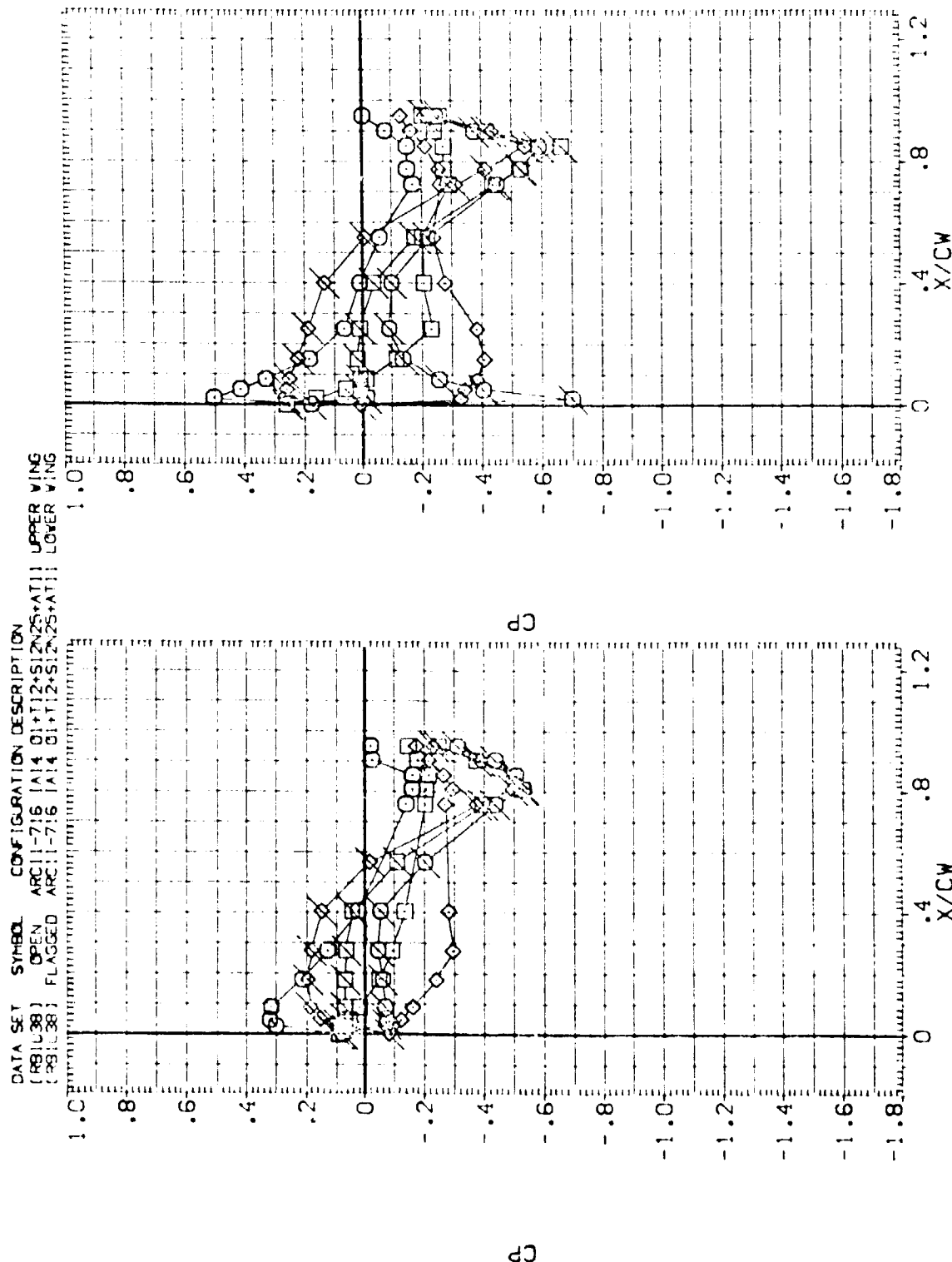
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R91L38) OPEN ARC11-716 [A14 0]T12+S12N25+AT11 UPPER WING  
 (R91L38) FLAGGED ARC11-716 [A14 0]T12+S12N25+AT11 LOWER WING



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

PARAMETRIC VALUES  
MACH 1.050  
ELEVON .000  
RUDDER .000  
SPOBRK .000

SYMBOL ALPHA0 Y/B4 BETA0  
O -8.080 .427 8.160  
□ -3.310 .534  
◇ 7.930



SYMBOL

ALPHA-0  
-8.090  
-3.10  
7.970

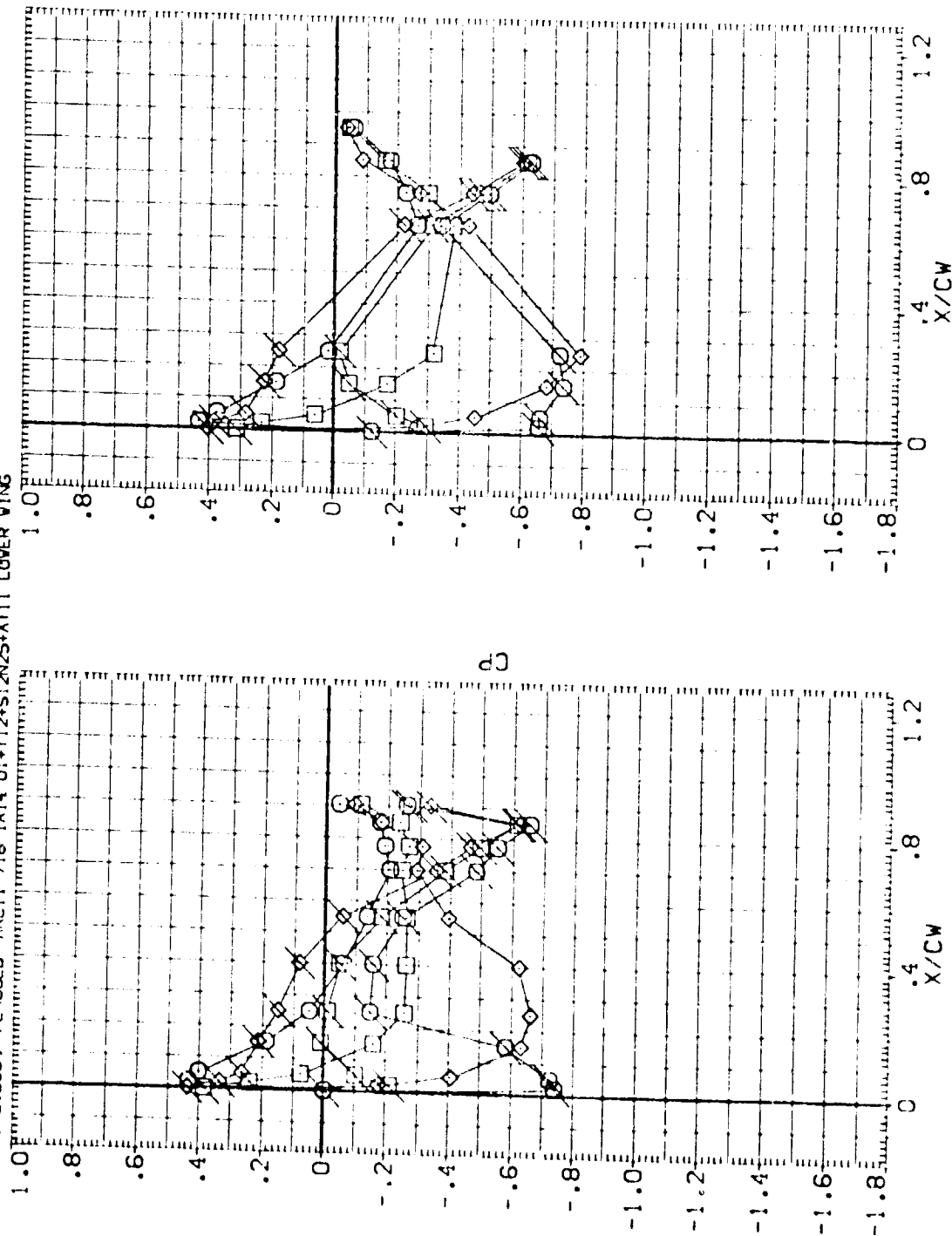
Y/BV  
.673  
.780

BETA-0  
8.160

MACH  
1.050  
1.000

PARAMETRIC VALUES  
ELEVON  
SPDRK  
.000  
.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
(R81U38) OPEN ARC11-716 [A14 01+112+512N25+AT11] UPPER WING  
(R81L38) FLAGGED ARC11-716 [A14 01+112+512N25+AT11] LOWER WING

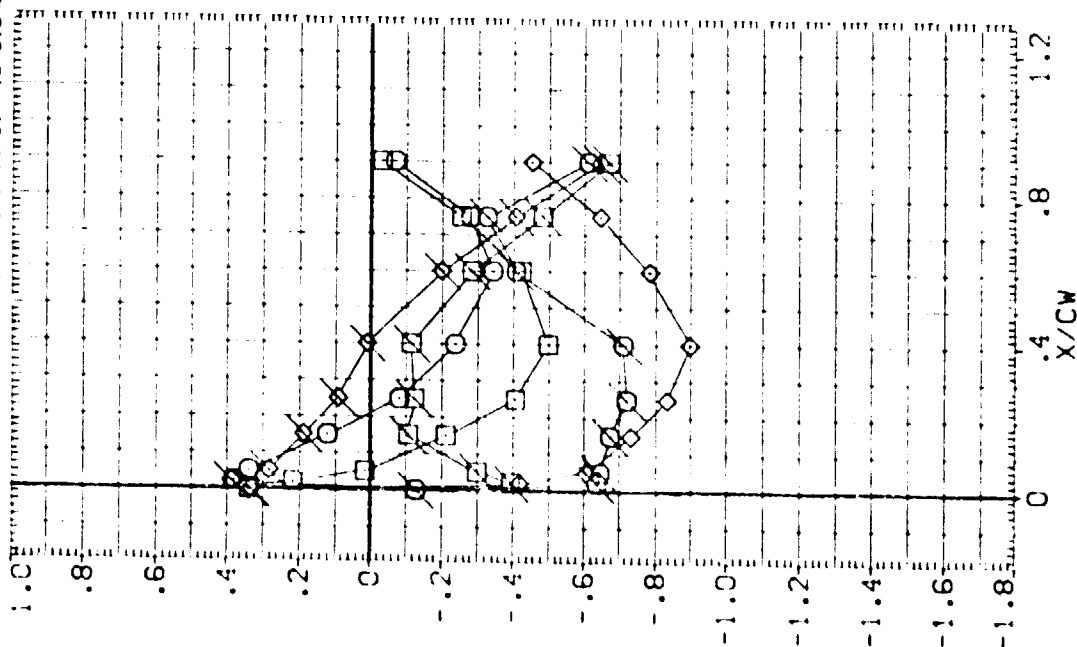


CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

SYMBOL ALPHA Y/B<sub>0</sub> BETA<sub>0</sub>  
 -8.080 .887 8.160  
 -7.310  
 -7.930

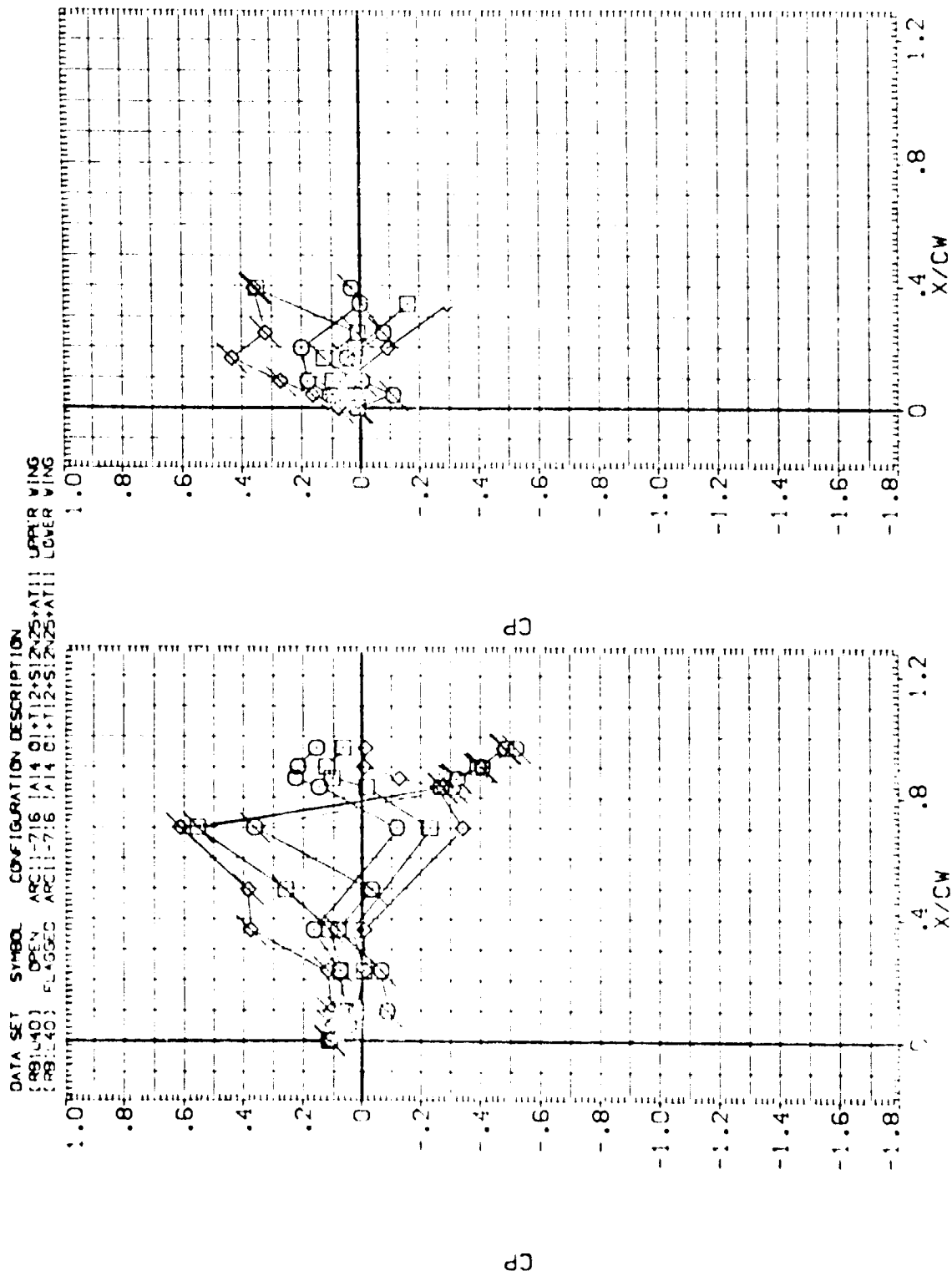
PARAMETRIC VALUES  
 MACH 1.050 ELEVON .000  
 RUDDER .000 SPDRK .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R81J36) OPEN ARC11-716 [A14 01+112+S12+25+AT1] UPPER WING  
 (R81J36) FLAGGED ARC11-716 [A14 01+112+S12+25+AT1] LOWER WING



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

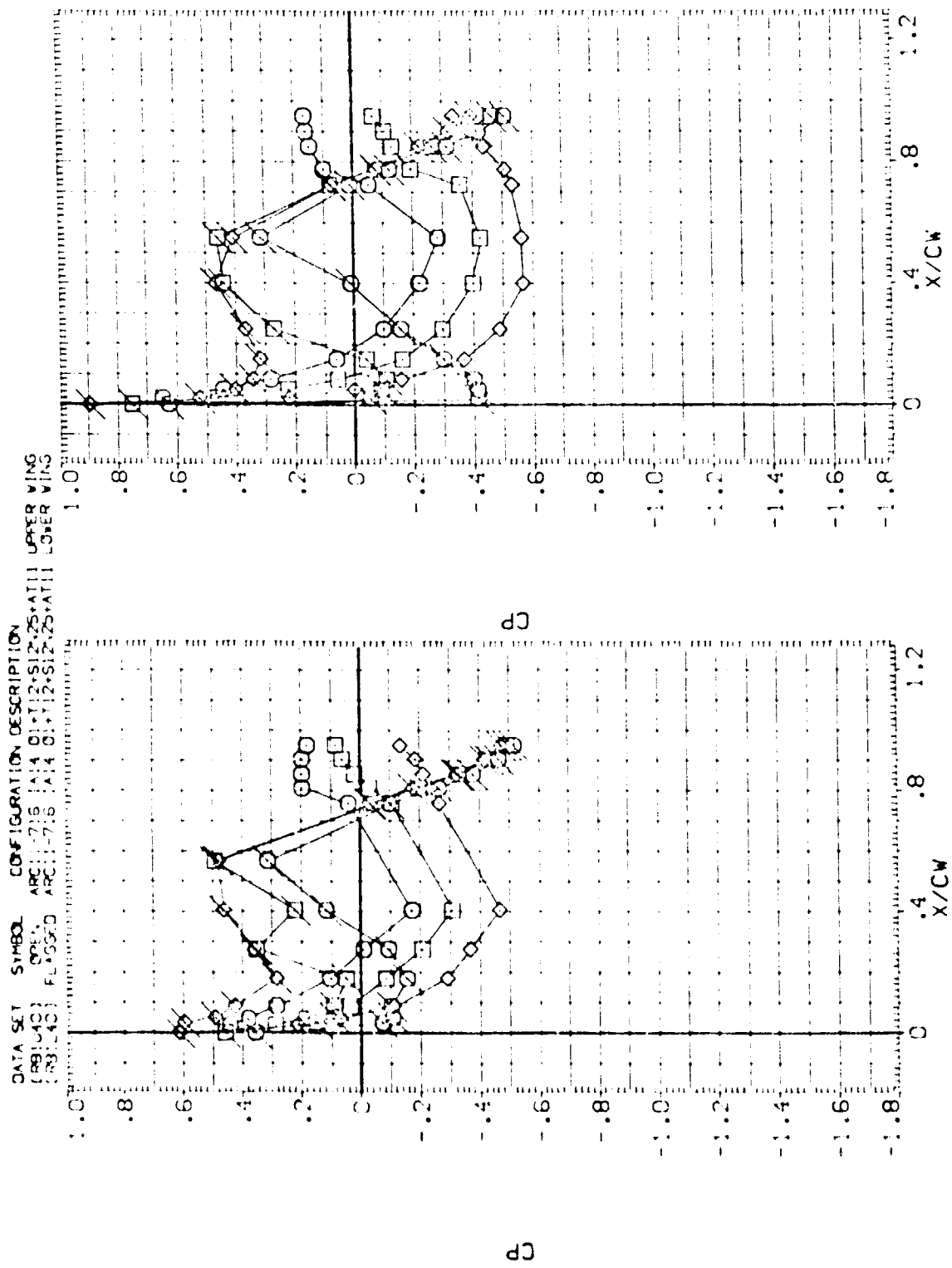
SYMBOL	ALPHA	Y/BV	BETA	MACH	PARAMETRIC VALUES	
	-7.920	.299	-8.040		1.400	ELEVON
	-1.370	.364		.000	SPOSRK	.000
	8.000					



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

PARAMETRIC VALUES  
 MACH 1.400 ELEVON .000  
 RUDDER 1.000 SPOBRN .000

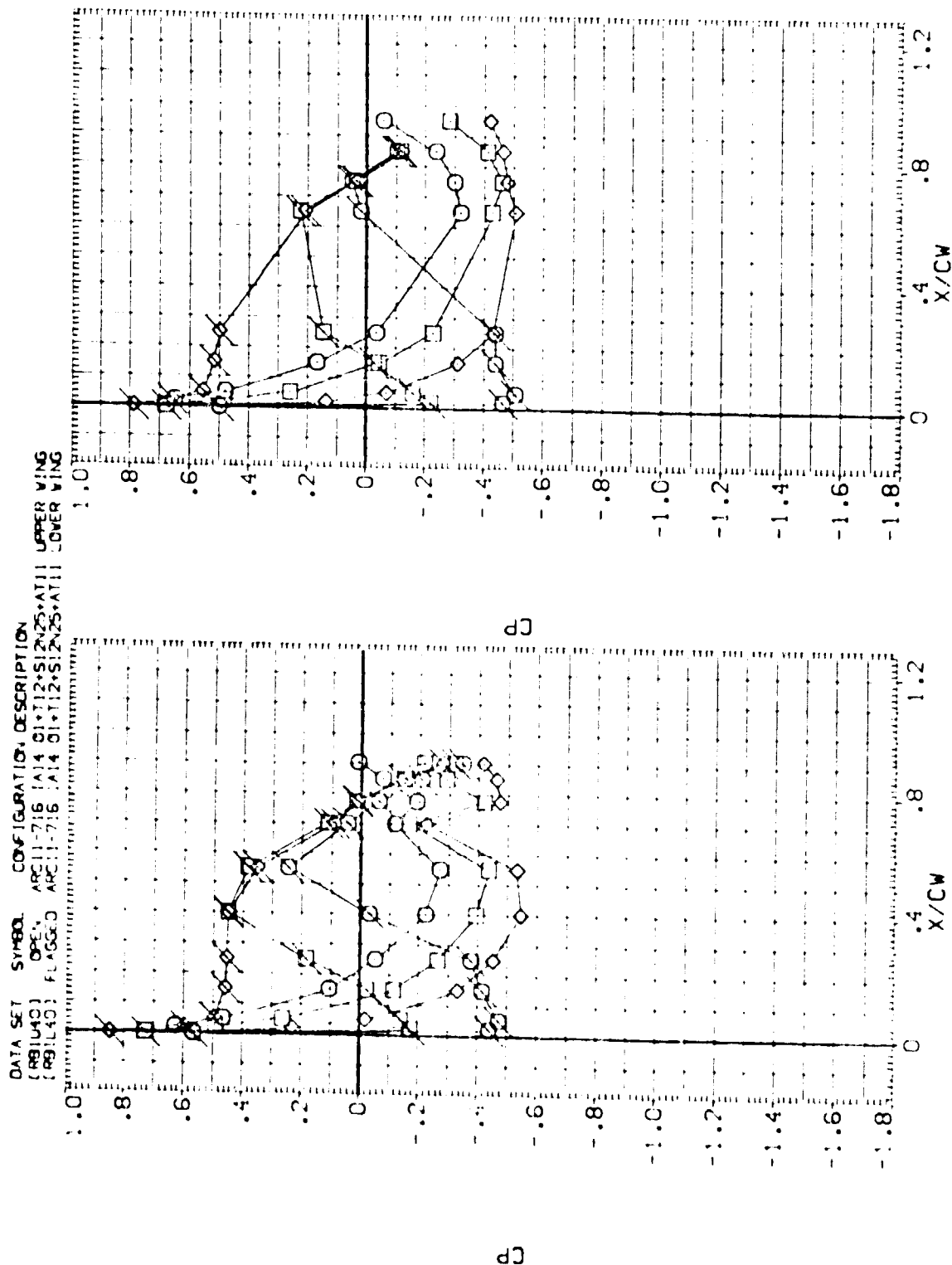
SYMBOL ALPHA0 Y/B0 BETAO  
 -7.970 .427 -8.040  
 -3.370 .534  
 8.000



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

PARAMETRIC VALUES  
 MACH 1.400 ELEV. 1.000  
 RUDDER 1.000 SPOON 1.000

SYMBOL ALPHA BETA  
 0 -7.970 .573 -8.040  
 1 -7.370 .780  
 2 8.000



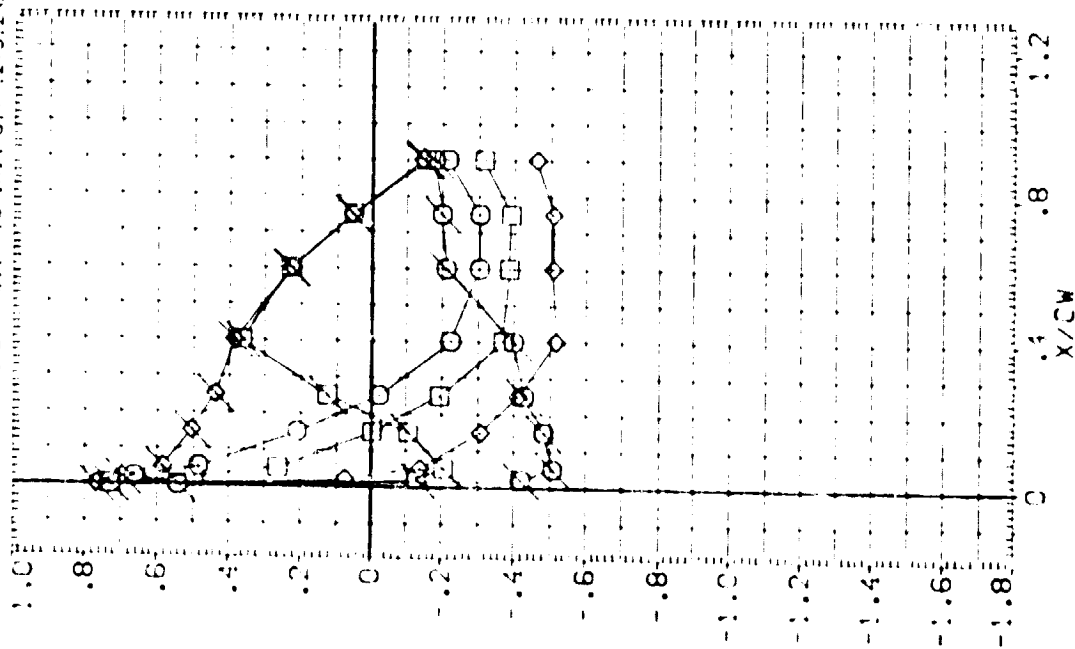
CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES



SYMBOL ALPHA0 Y/B<sub>0</sub> BETA0  
 ○ 7.920 .687 8.040  
 △ 7.370  
 ◇ 8.000

PARAMETRIC VALUES  
 MACH 1.400  
 RUDDER .000  
 ELEVON .000  
 SPOILER .000

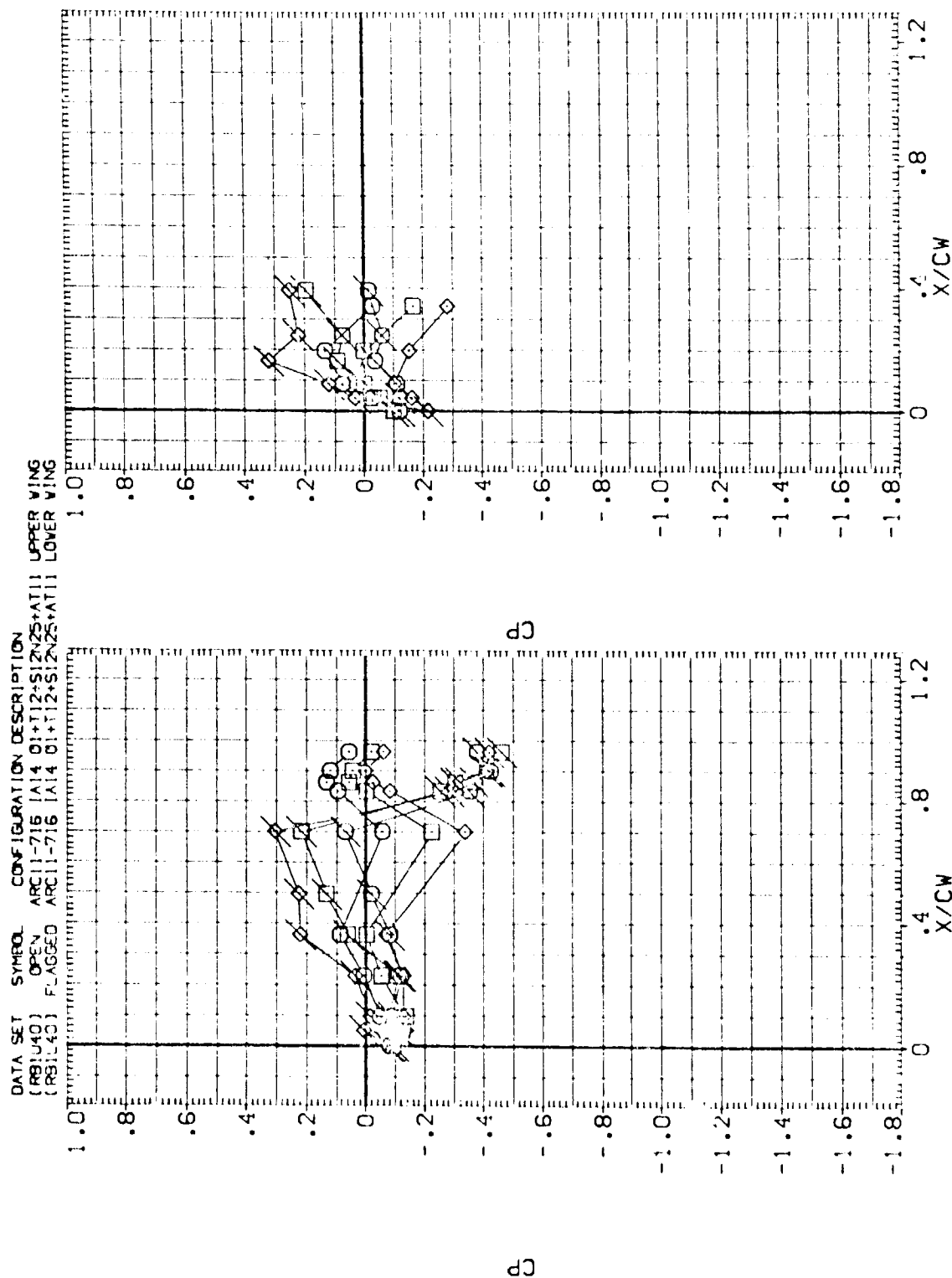
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (P0140) SPIN ARC11-716 IAI4 01+12-S12-25+AT11 UPPER WING  
 (P0140) FLAP500 ARC11-716 IAI4 01+12-S12-25+AT11 LOWER WING



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

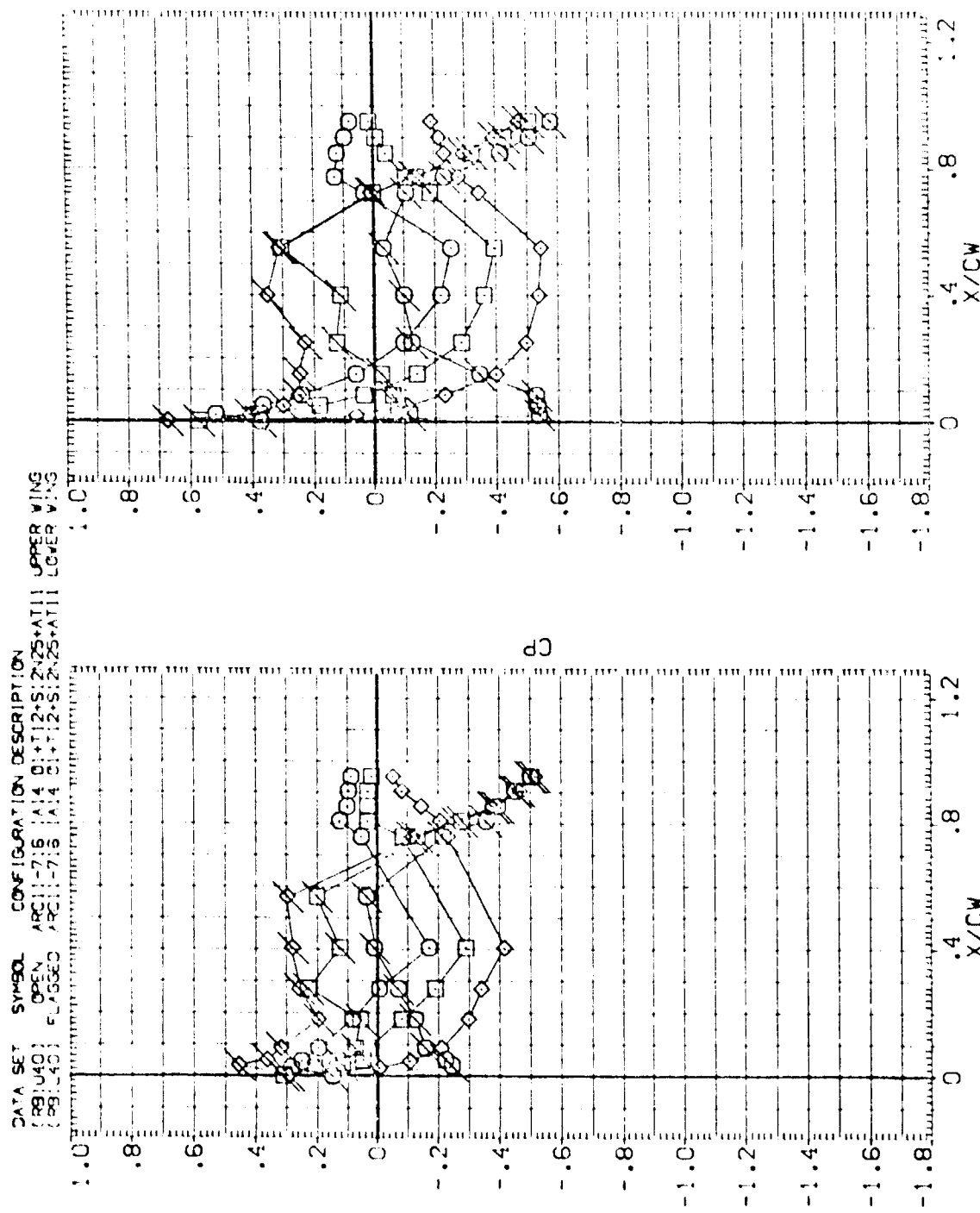
PARAMETRIC VALUES  
 MACH 1.400 ELEVON .000  
 RUDDER .000 SPOILER .000

ALPHA0 -7.920 Y/BV .299 BETA0 .030  
 -1.370 .364  
 8.000



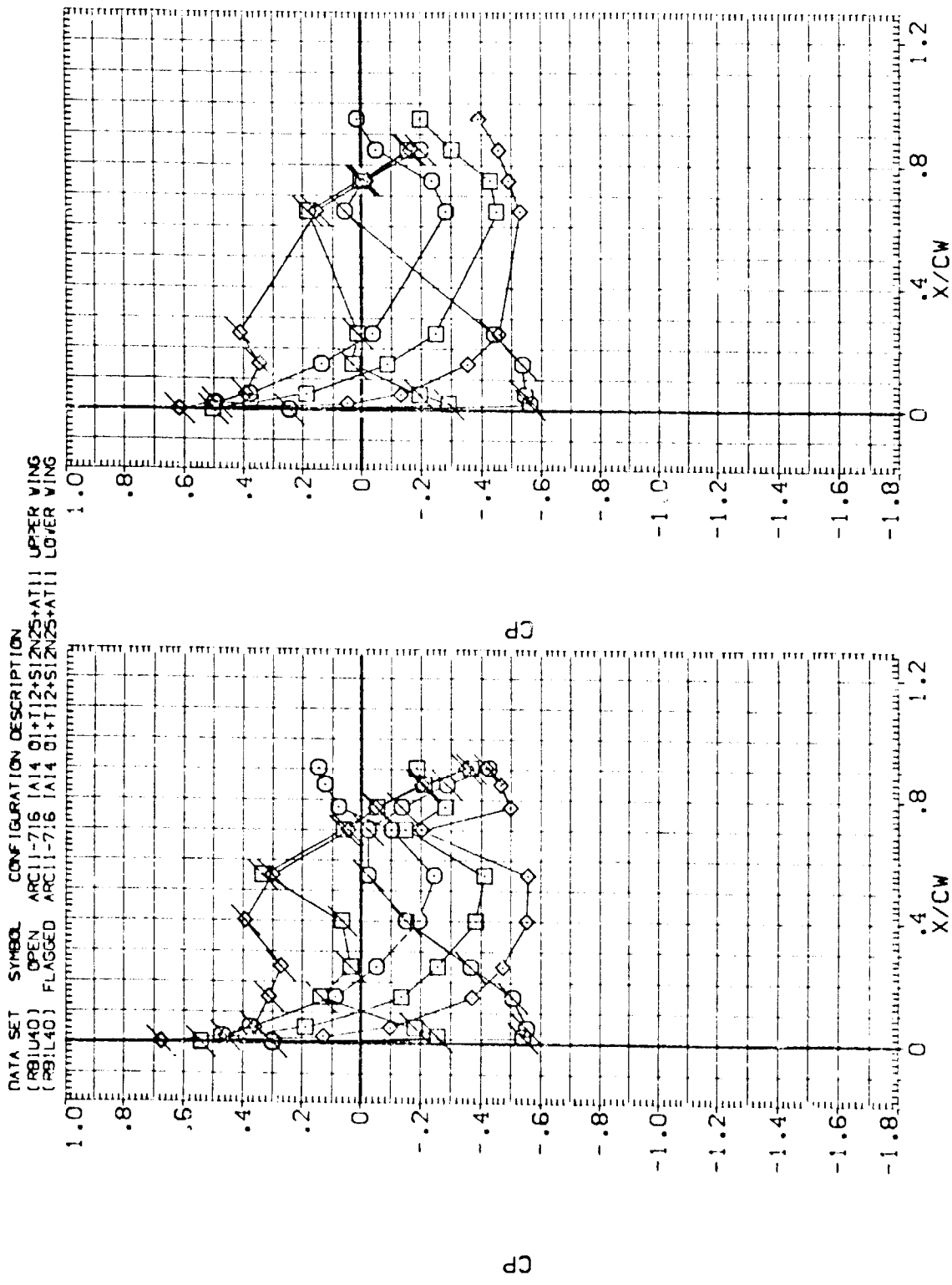
CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

SYMBOL	ALPHA	BETA	Y/B	MACH	PARAMETRIC VALUES
○	-7.920	.030	.427	FLUID	1.400 ELEVON
◇	-7.370	.534			1.000 SPOILER
	8.000				



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

SYMBOL	ALPHA	Y/BV	BETA	PARAMETRIC VALUES
○	-7.920	.673	.030	MACH 1.400
□	-.370	.780		ELEVON .000
◇	8.000			SPDRK .000



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

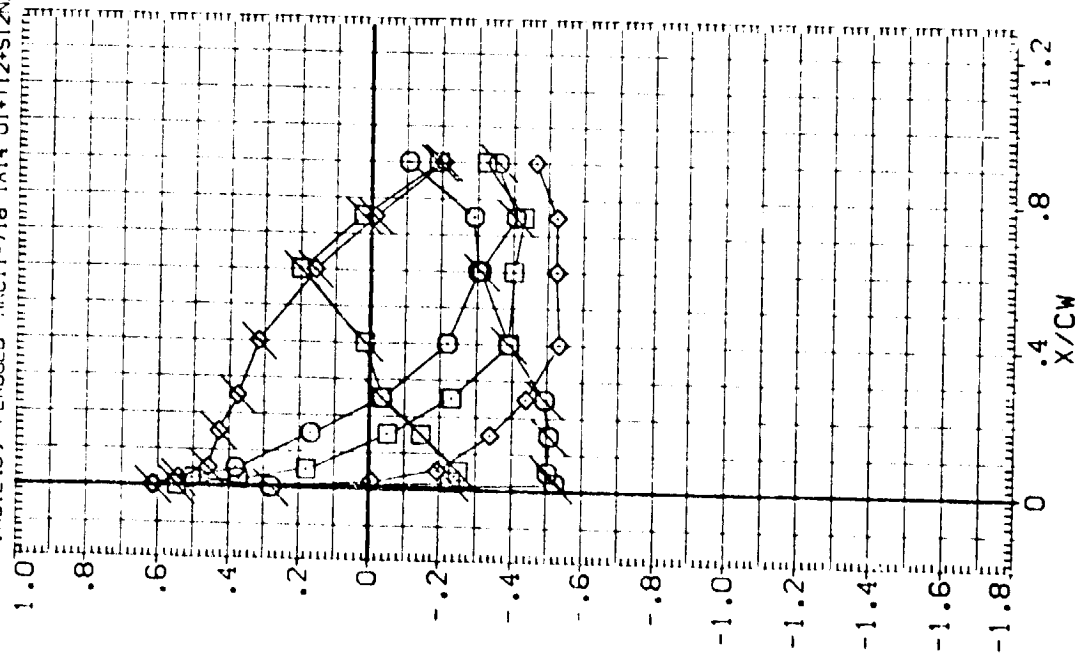
SYMBOL  
○ □ ◇

ALPHA  
-7.920  
-7.370  
8.000

Y/BA  
.687  
.030

PARAMETRIC VALUES  
MACH 1.400  
RUDDER .000  
ELEVON .000  
SPDBRK .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
(RBLU40) OPEN ARC11-716 1A14 01+T12+S12N25+AT11 UPPER WING  
(RBLU40) FLAGGED ARC11-716 1A14 01+T12+S12N25+AT11 LOWER WING

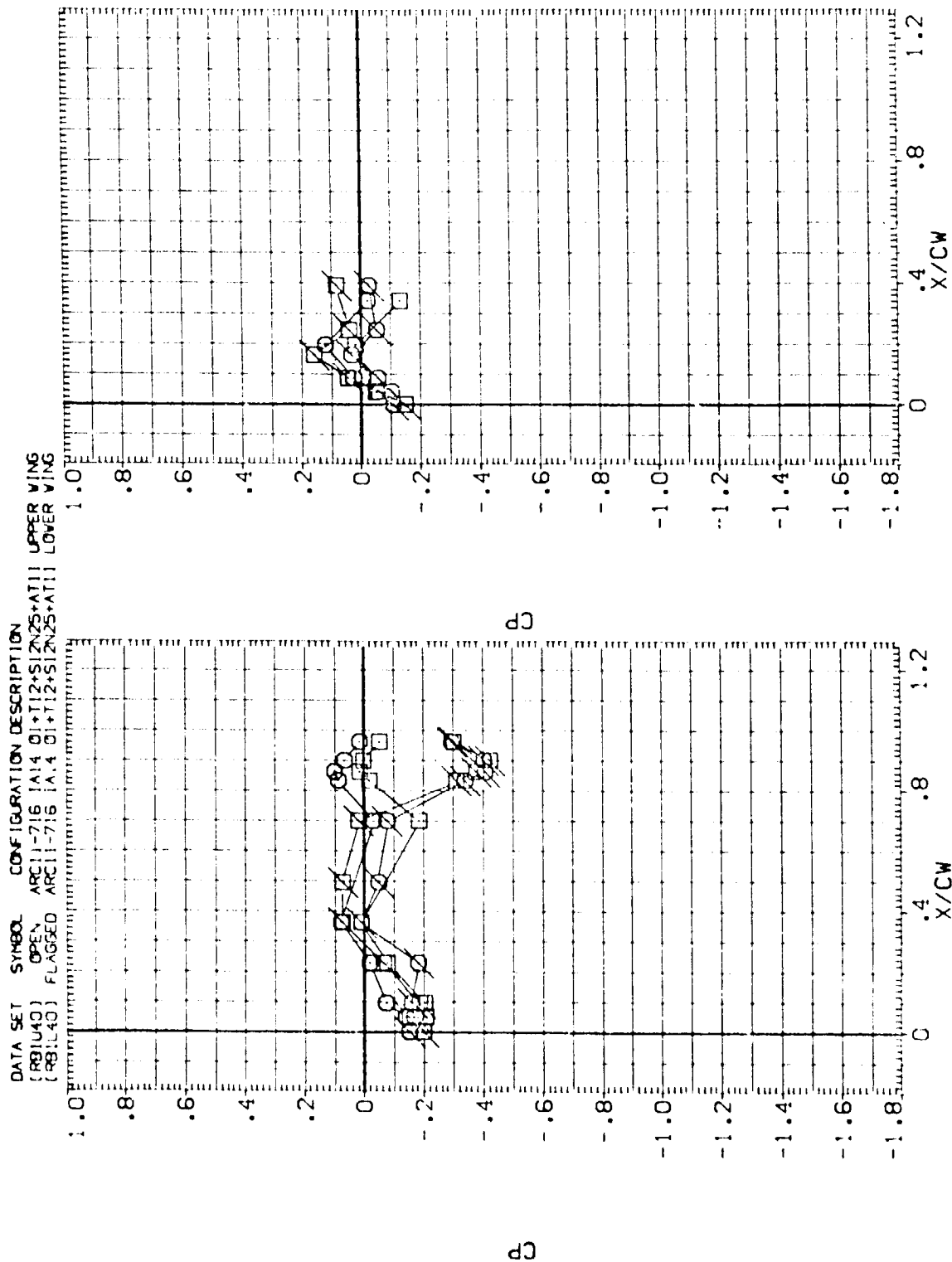


CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

PARAMETRIC VALUES  
 1.400 ELEVON .000  
 .000 SPDRK

MACH  
 RUDDER

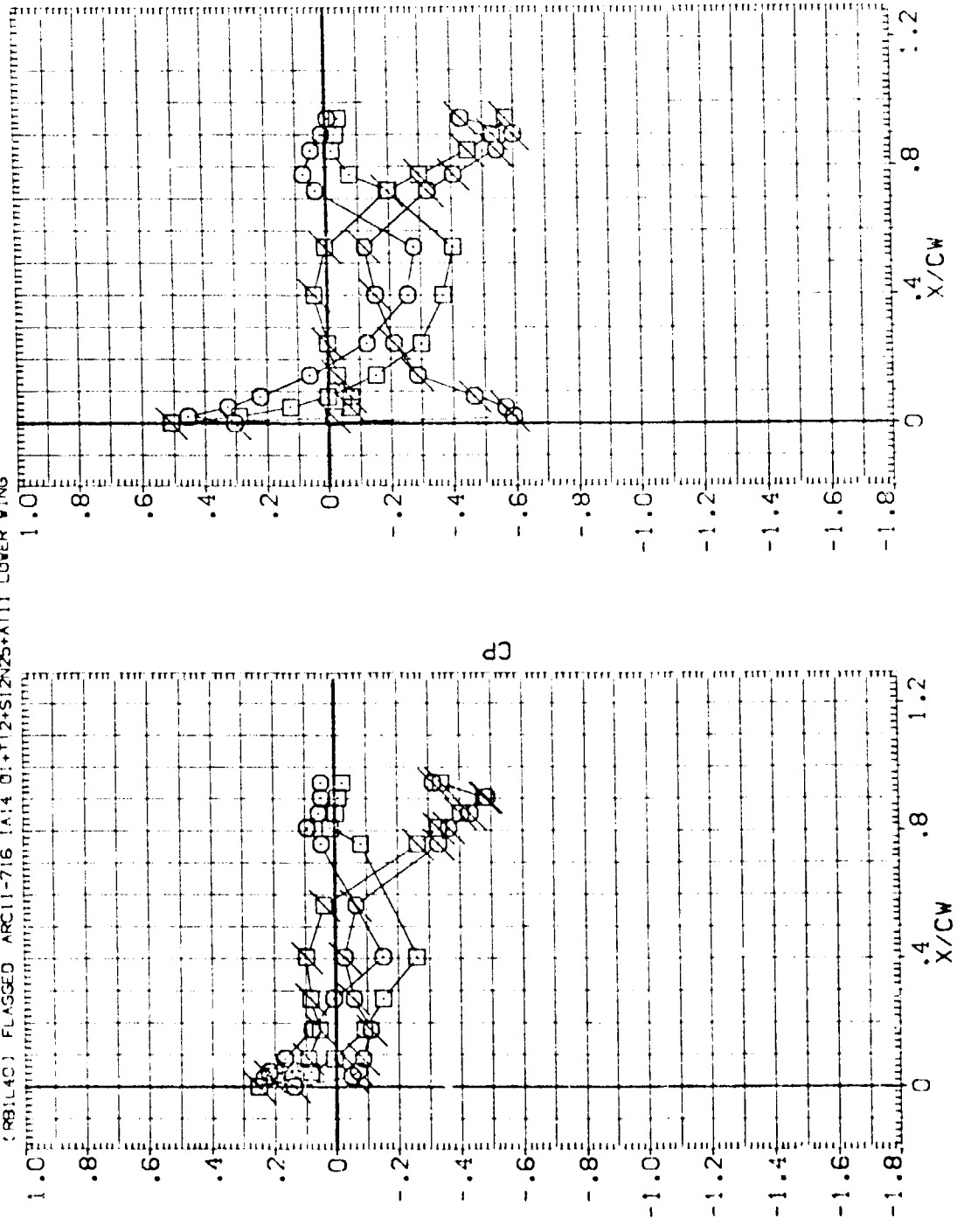
SYMBOL ALPHA0 Y/BV BETA0  
 -7.920 .299 4.100  
 -3.370 .364



PARAMETRIC VALUES  
 MACH 1.400 ELEVON .000  
 RUDDER .000

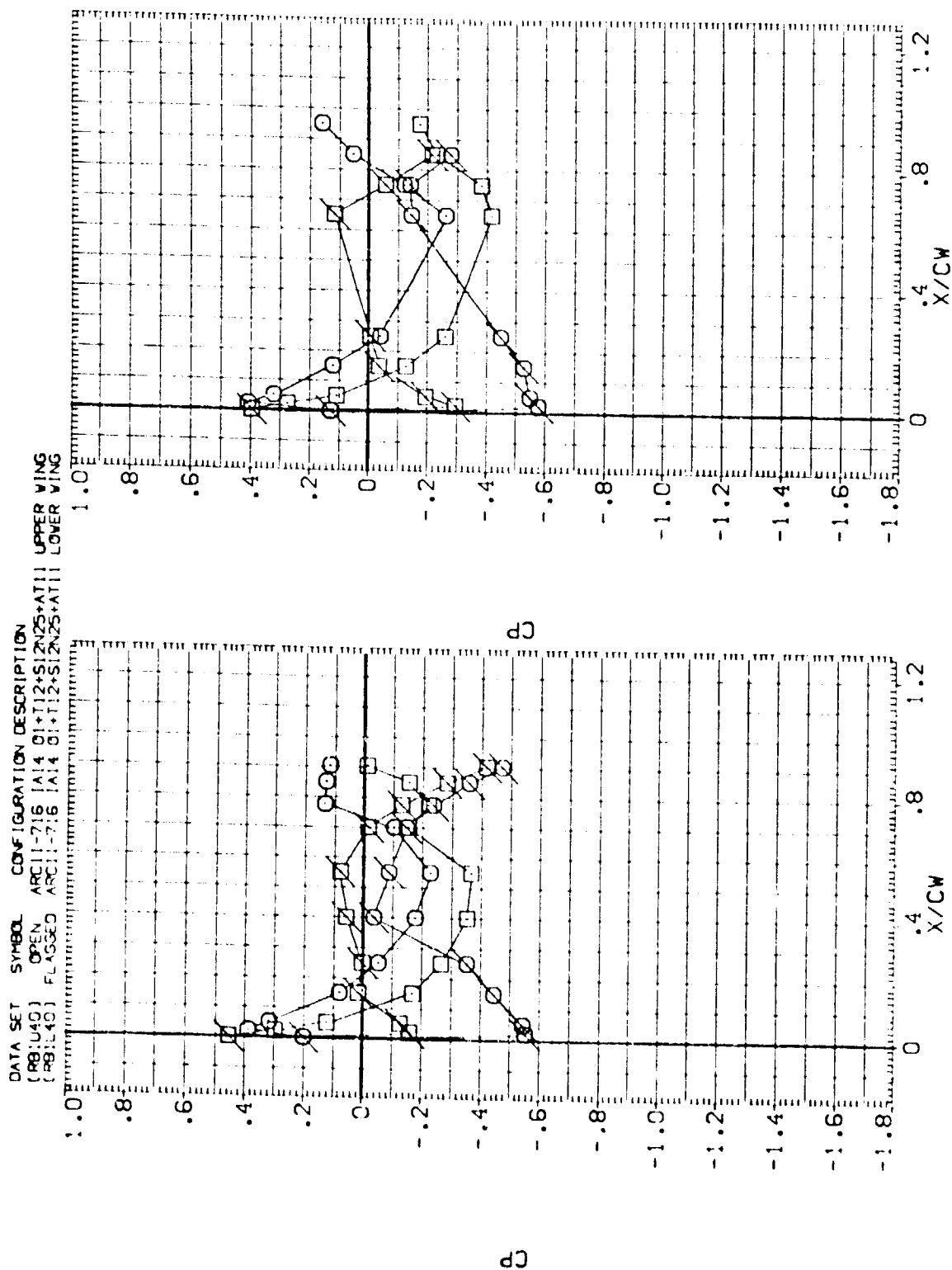
SYMBOL ALPHA Y/BV BETA0  
 -7.920 .427 4.100  
 -1.370 .534

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R91U40) OPEN ARC11-716 [A14 01+12+512+25+AT11] UPPER WING  
 (R81L40) FLAGGED ARC11-716 [A14 01+12+512+25+AT11] LOWER WING



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

SYMBOL	ALPHA	Y/BV	BETA	MACH	PARAMETRIC VALUES
○	-7.920	.673	4.100	RUDDER	1.400 ELEVON .000
□	-3.370	.780			.000 SPDBRK .000



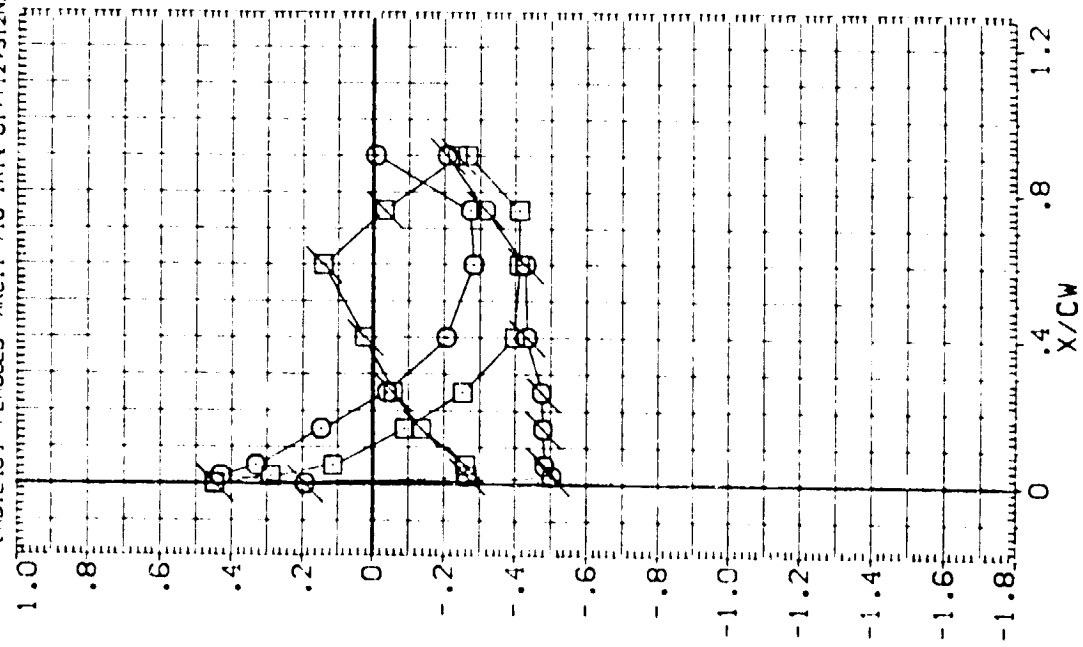


SYMBOL ALPHA Y/BV BETAD  
 -7.920 .887 4.100  
 -370

MACH  
 RUDDER

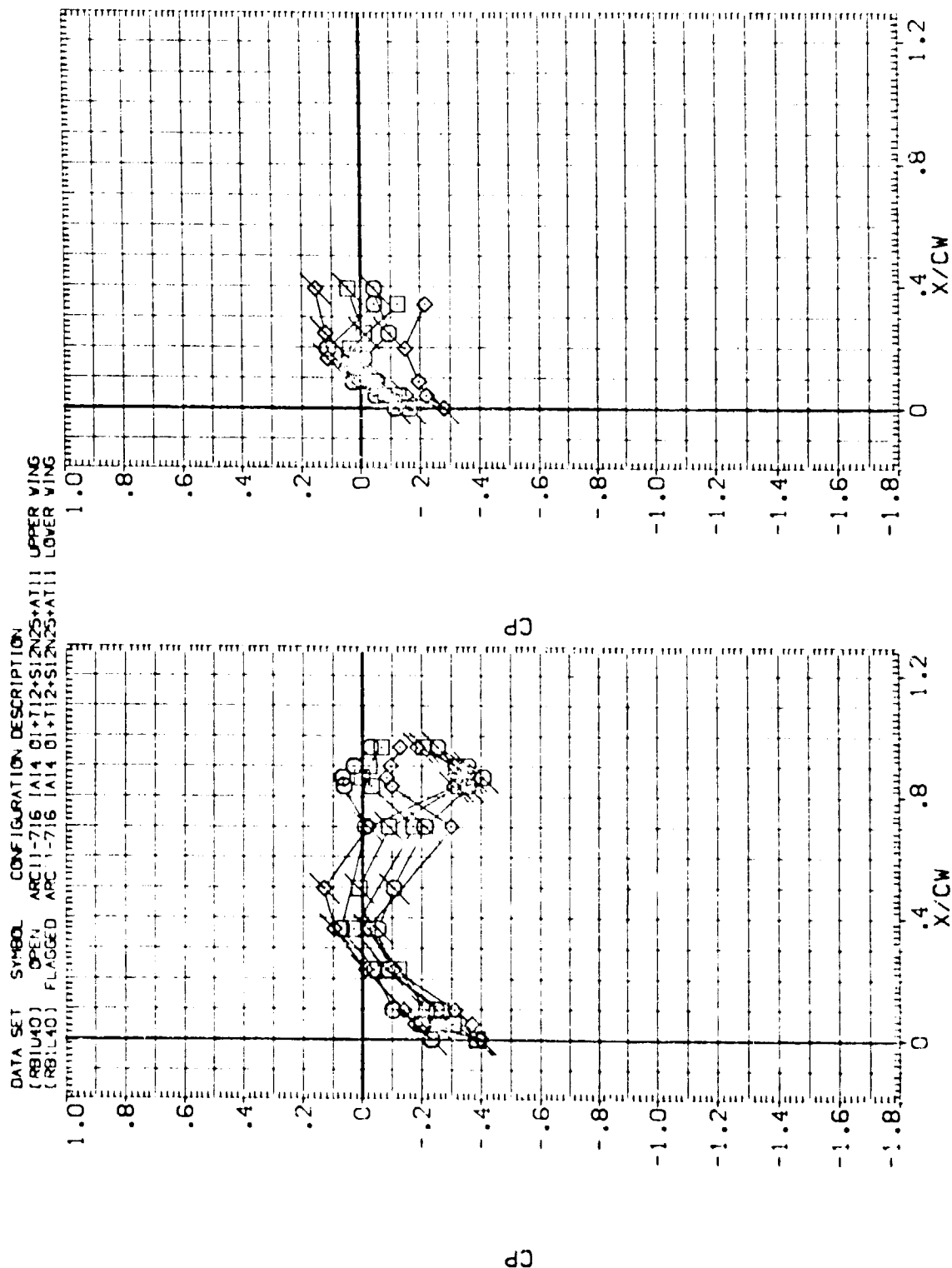
PARAMETRIC VALUES  
 1.400 ELEVON  
 .000 SPOBRK  
 .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R01U40) OPEN ARC11-716 [A14 01+112+512N25+AT11] UPPER WING  
 (R01L40) FLAGGED ARC11-716 [A14 01+112+512N25+AT11] LOWER WING



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

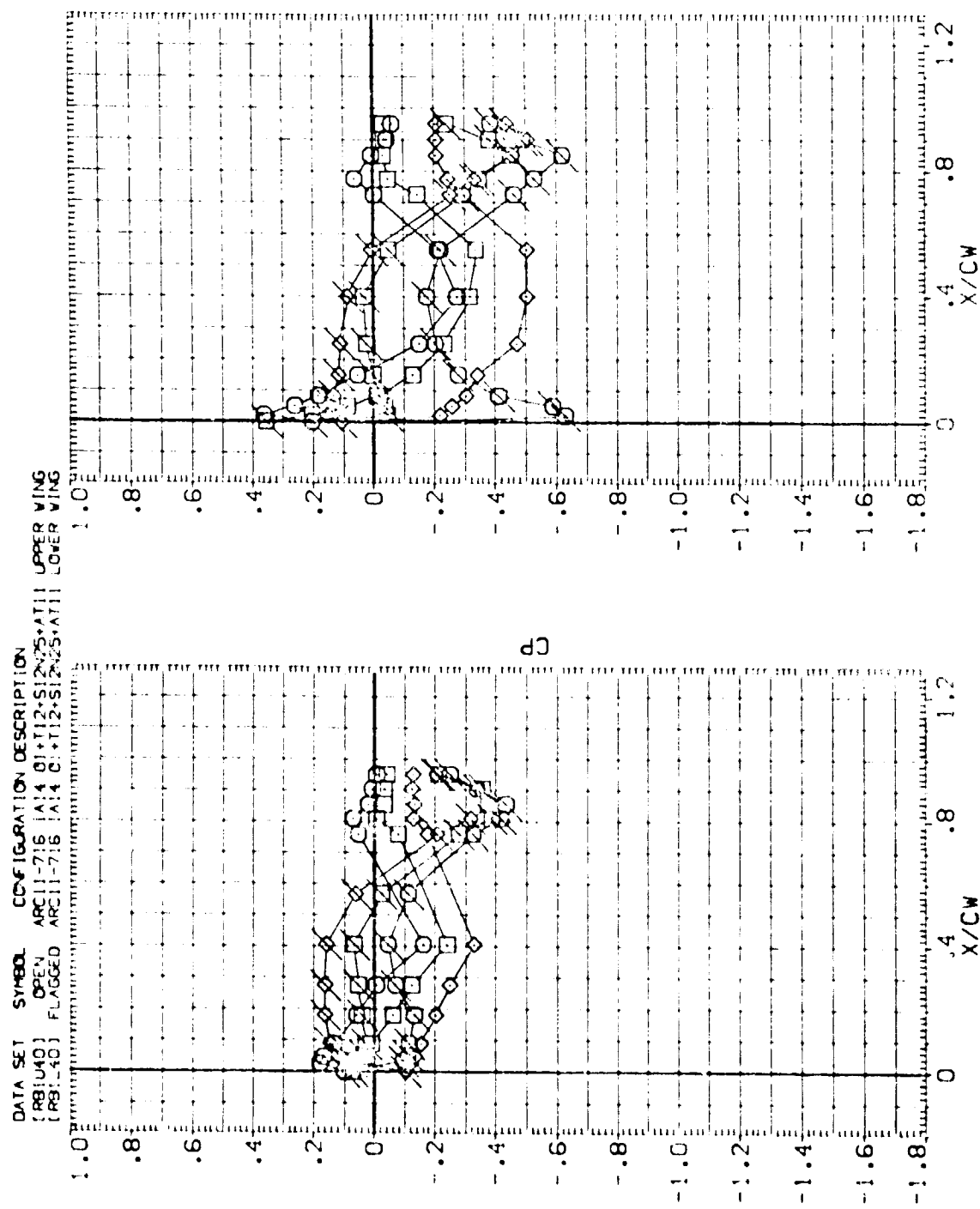
SYMBOL	ALPHA	Y/BV	BETA	MACH	PARAMETRIC VALUES
	-7.920	.299	8.190		
	-.370	.364			
◇	8.000			RUDER	ELEVON
					SPDRK
					.000
					.000



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

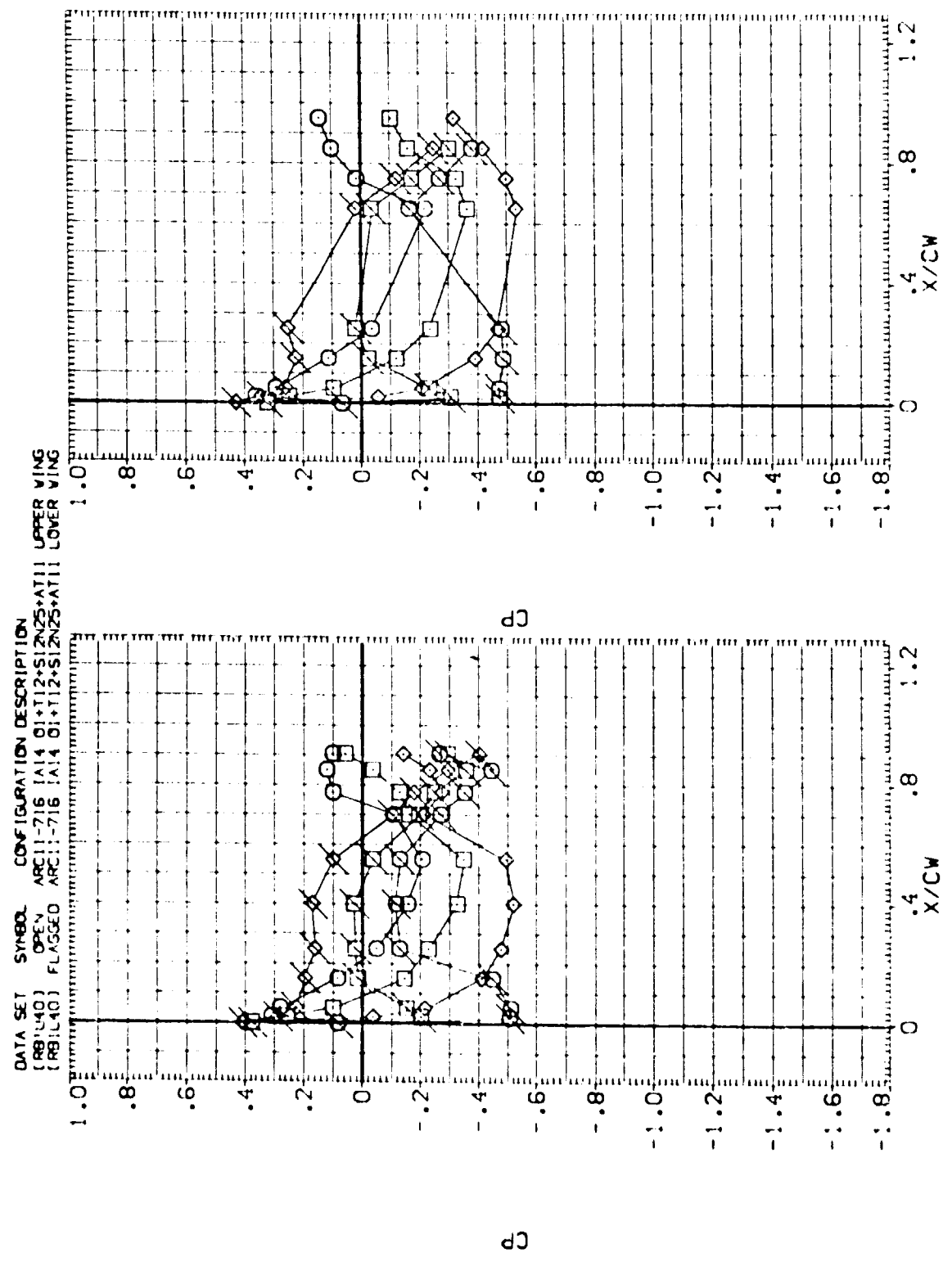
PARAMETRIC VALUES  
 MACH 1.400 ELEVON .000  
 RUDDER .000 SPOILER .000

SYMBOL ALPHA0 Y/BV BETA0  
 -7.920 .427 8.190  
 -3.370 .534  
 8.000



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

SYMBOL	ALPHA	Y/BV	BETA	MACH	PARAMETRIC VALUES
○	-7.920	.673	8.190	RUDDER	1.400 ELEVON
□	-1.370	.780			.000 SPOILER
◇	8.000				



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

SYMBOL

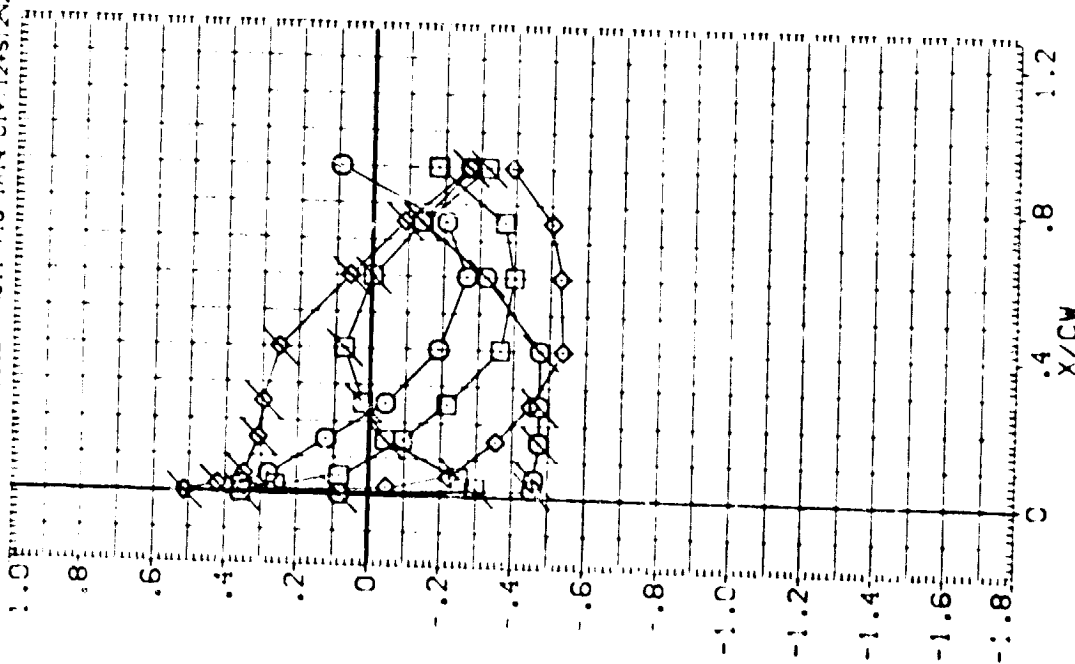
ALPHA  
-7.92C  
-3.7C  
8.00C

Y/BV  
.887

BETA  
8.190

PARAMETRIC VALUES  
MACH  
1.400  
ELEVON  
.000  
SPDBRM  
.000

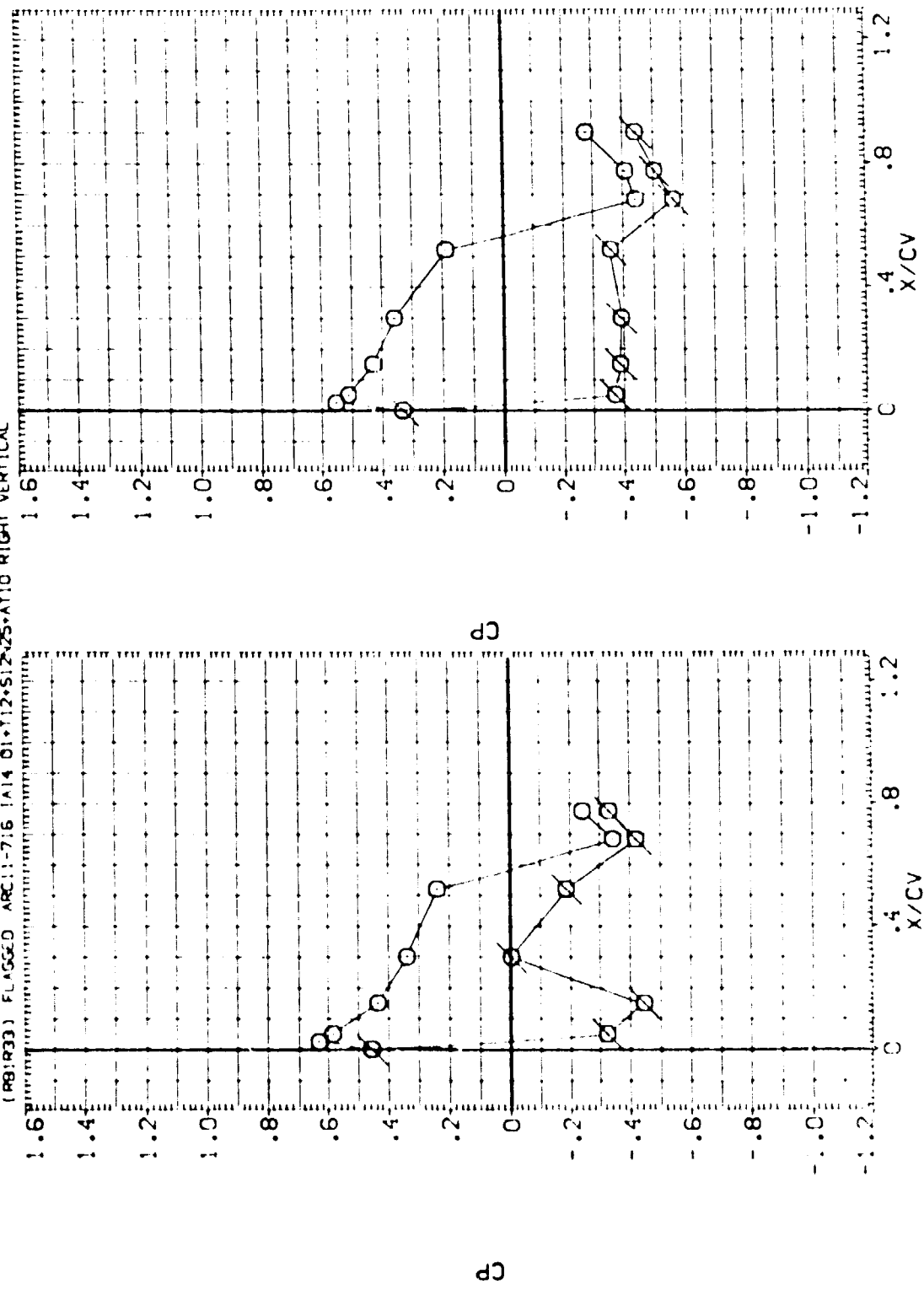
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
[R8][U40] OPEN ARC[1]-7[6] [A]4 0[1]7[2]25+AT[1] UPPER WING  
[R9][U40] FLAGGED ARC[1]-7[6] [A]4 0[1]7[2]25+AT[1] LOWER WING



CHORDWISE DISTRIBUTION OF UPPER AND LOWER SURFACE WING PRESSURES

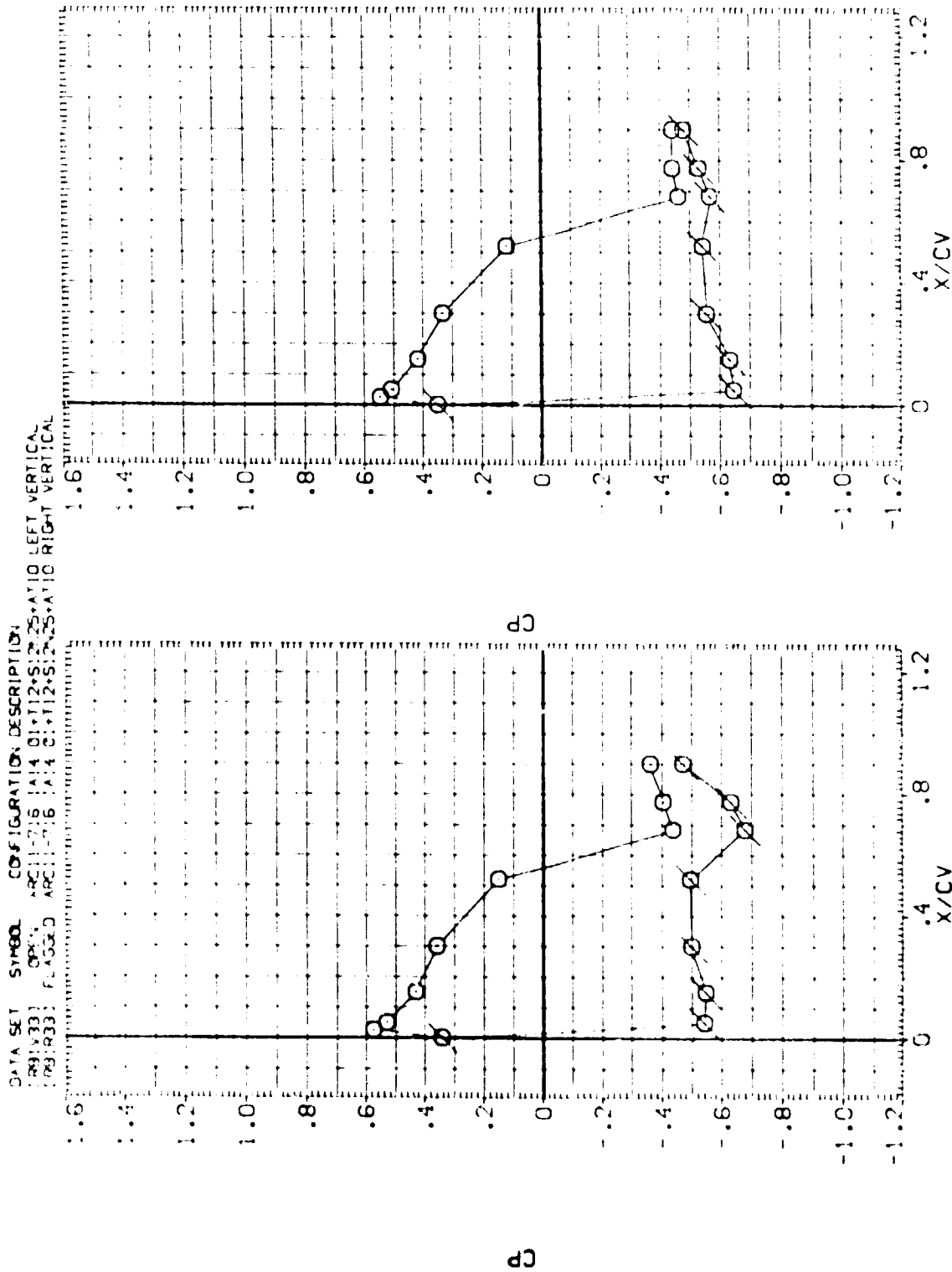
SYMBOL ALPHA Z/BY BETA0  
 O -0.760 .158 -8.420  
 .316

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R81V33) OPEN ARC11-716 A14 01-112-S12-25-AT10 LEFT VERTICAL  
 (R81R33) FLAGGED ARC11-716 A14 01-112-S12-25-AT10 RIGHT VERTICAL



CLOCKWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

S1480 ALPAC 2.34 BETAC -8.420  
 0 .760 .600 .040  
 MACH RUDDER  
 PARAMETRIC VALUES  
 1.250 ELEVCH  
 .000 SPDR

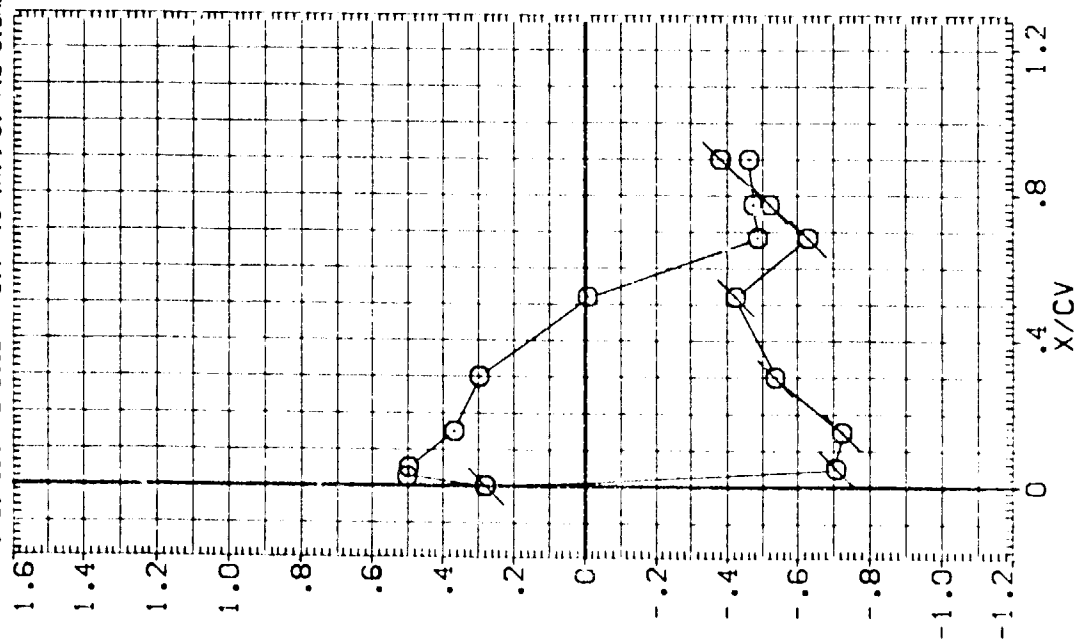


CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

SYMBOL ALPHA Z/BV BETA  
 O -0.760 .925 -8.420

PARAMETRIC VALUES  
 1.250 ELEVON  
 .000 SPOBRK

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RB1V33) OPEN ARC11-716 1A14 01+112+512N25+AT10 LEFT VERTICAL  
 (RB1R33) FLAGGED ARC11-716 1A14 01+112+512N25+AT10 RIGHT VERTICAL



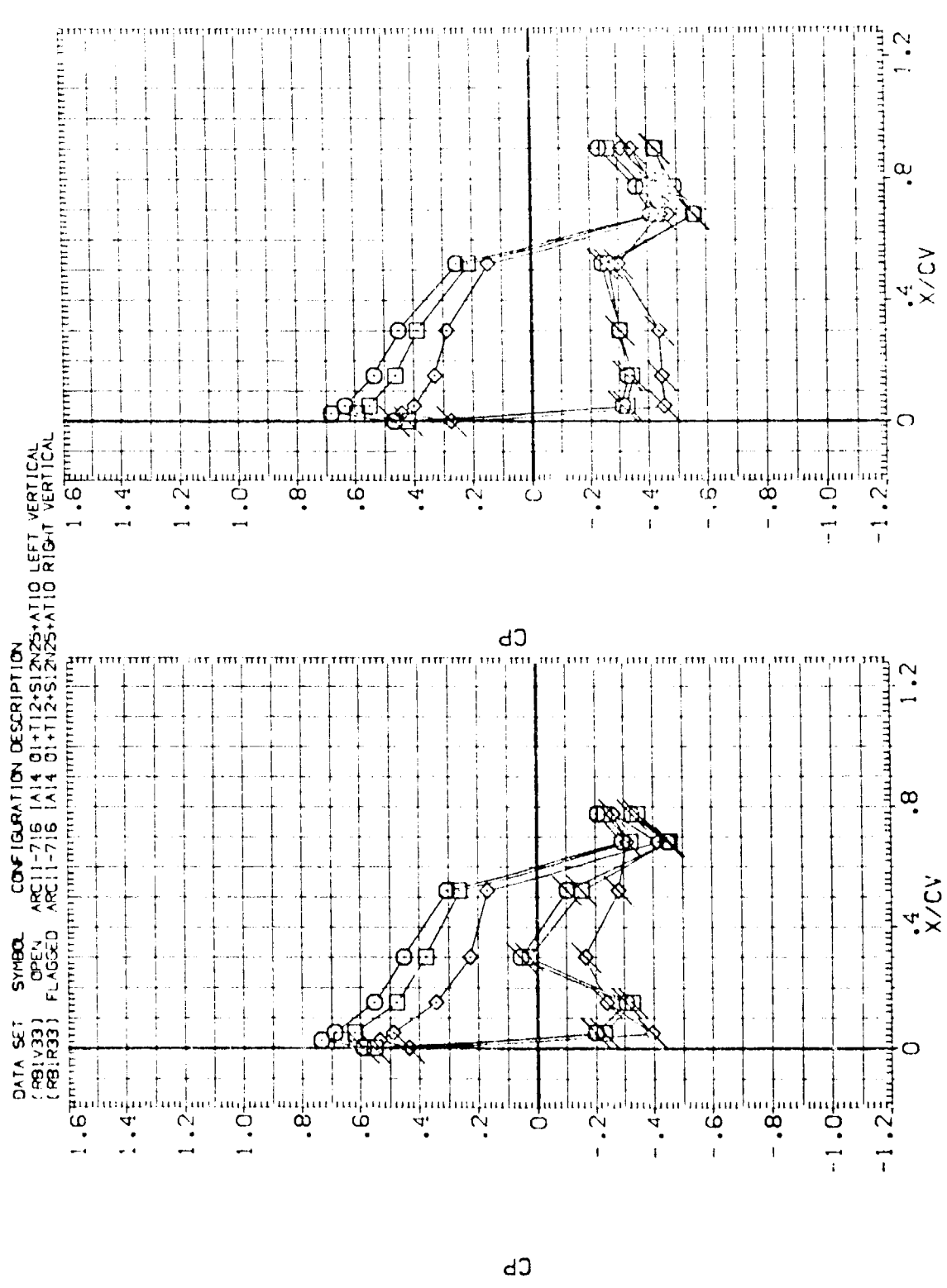
CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES



PARAMETRIC VALUES  
 MACH 1.250 ELEVON .000  
 RUDDER .000

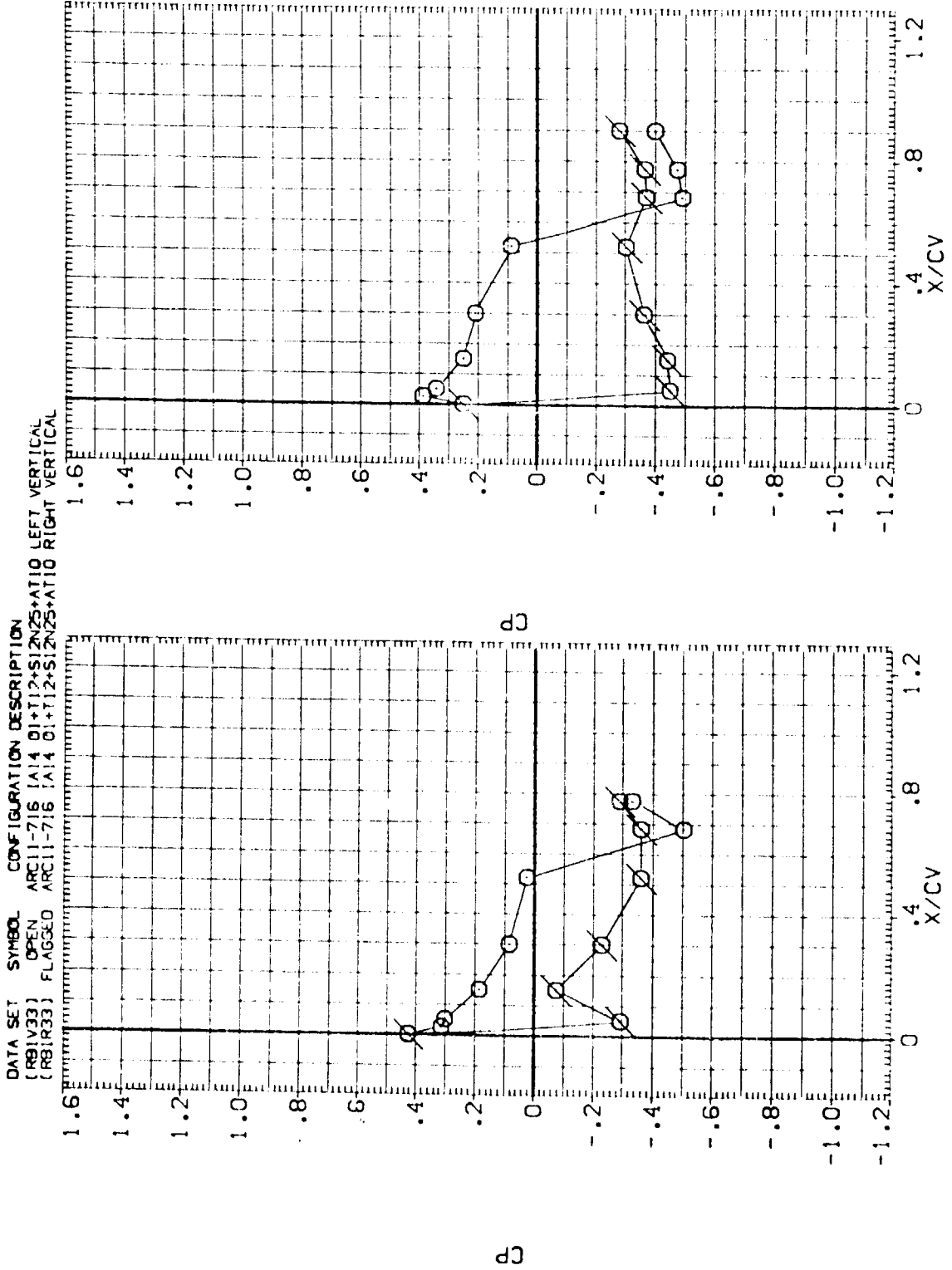
ALPHA 0  
 -8.220  
 -4.200  
 4.300

BETA 0  
 -7.920  
 .316



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

SYMBOL	ALPHA	Z/BV	BETAG	PARAMETRIC VALUES		
				MACH	ELEVON	
				RUDDER	SPDRK	
○	7.910	.158 .316	-7.920	.000	.000	.000



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

PARAMETRIC VALUES  
 1.250 ELEVON  
 .000 SPOILER

MACH  
 RUDDER

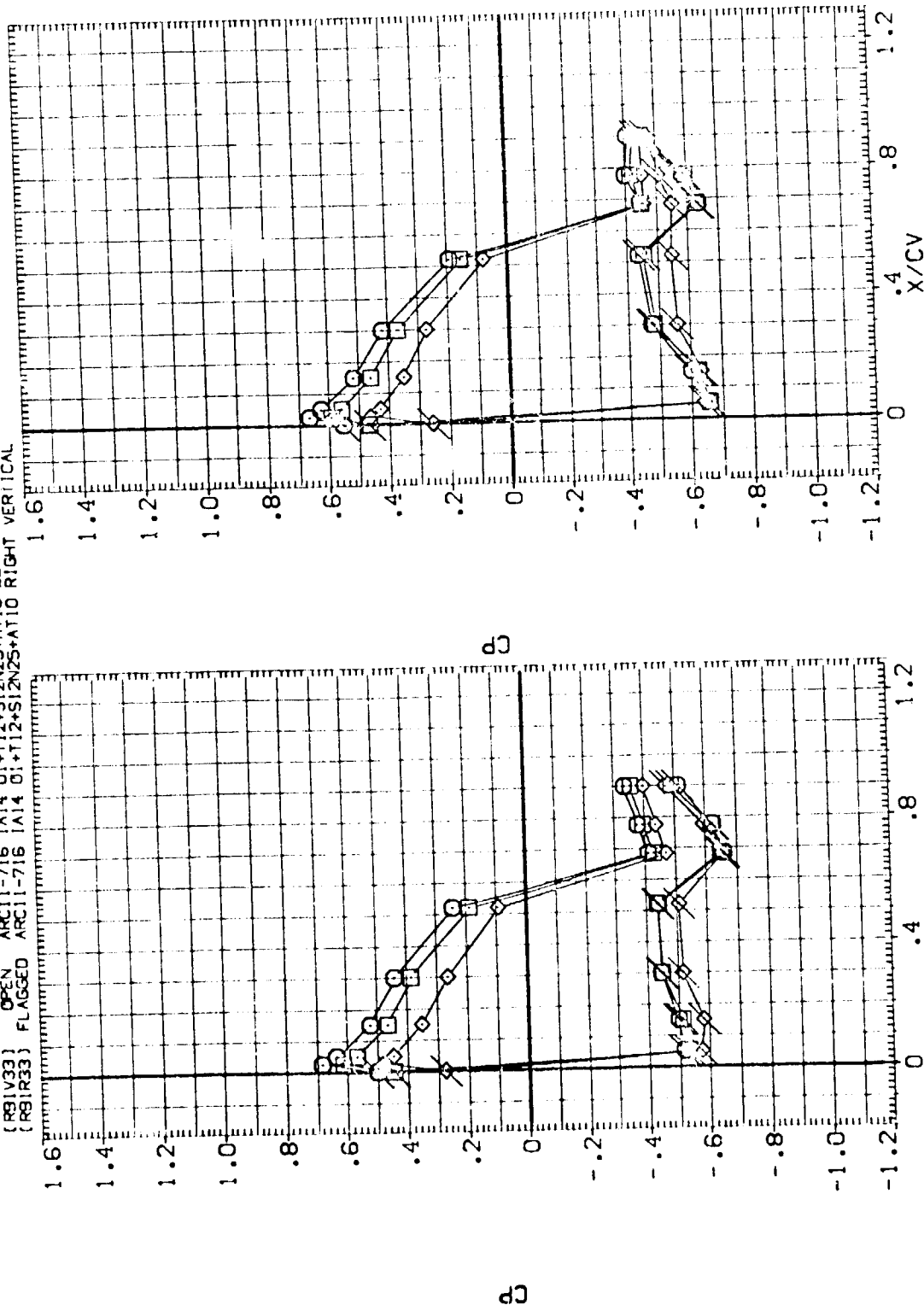
Z/BV  
 .600  
 .840

ALPHA  
 -8.220  
 -4.200  
 4.300

SYMBOL  
 O  
 □  
 ◇

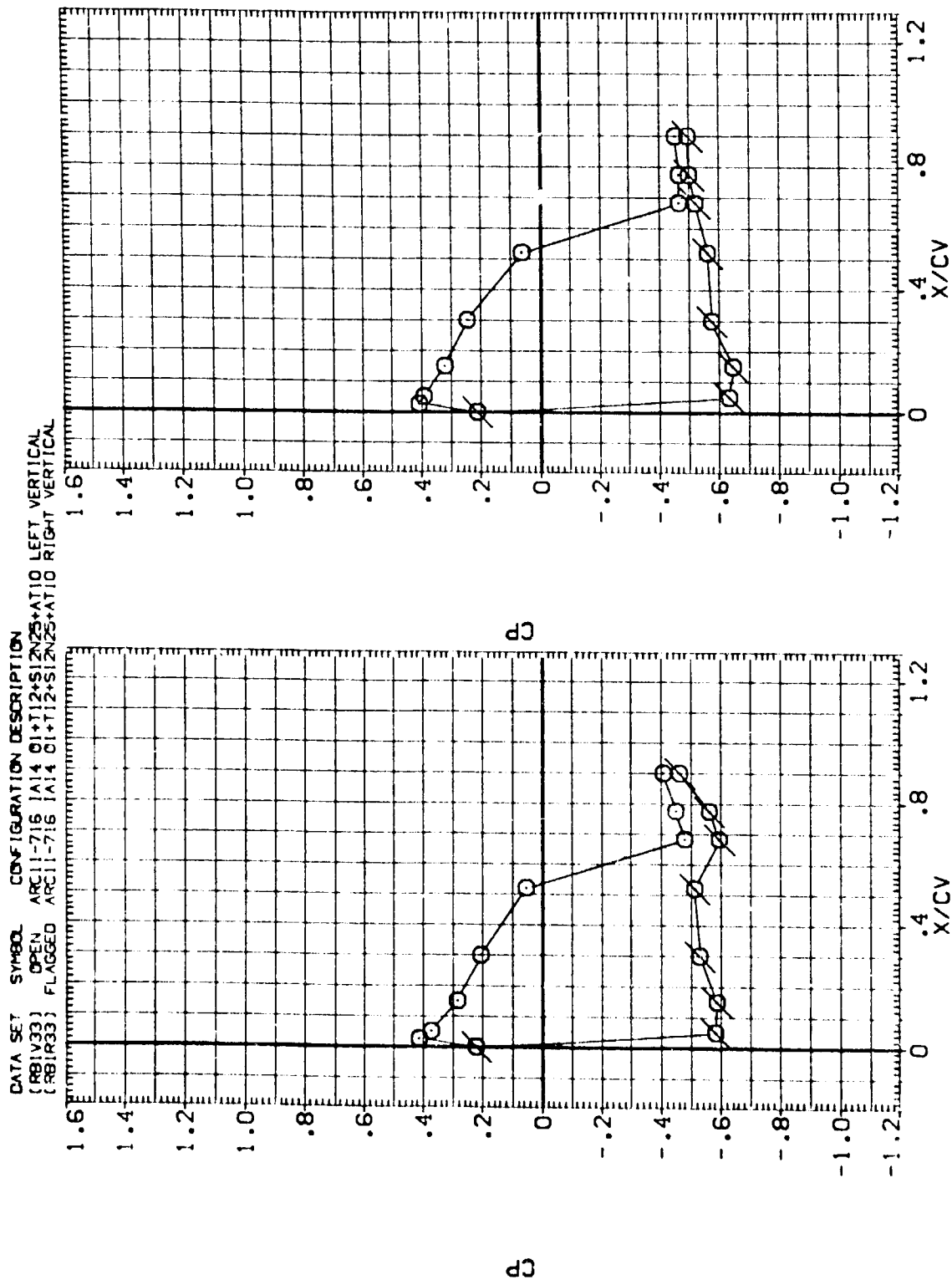
BETA  
 -7.920

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 {RS1V33} OPEN ARC11-716 1A14 01+T12+S12N25+AT10 LEFT VERTICAL  
 {RS1R33} FLAGGED ARC11-716 1A14 01+T12+S12N25+AT10 RIGHT VERTICAL



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

SYMBOL	ALPHA	Z/SV	BETA	PARAMETRIC VALUES		
				MACH	ELEVON	SPOSRK
○	7.910	.600	-7.920	1.250	.000	.000
		.840		RUDDER		



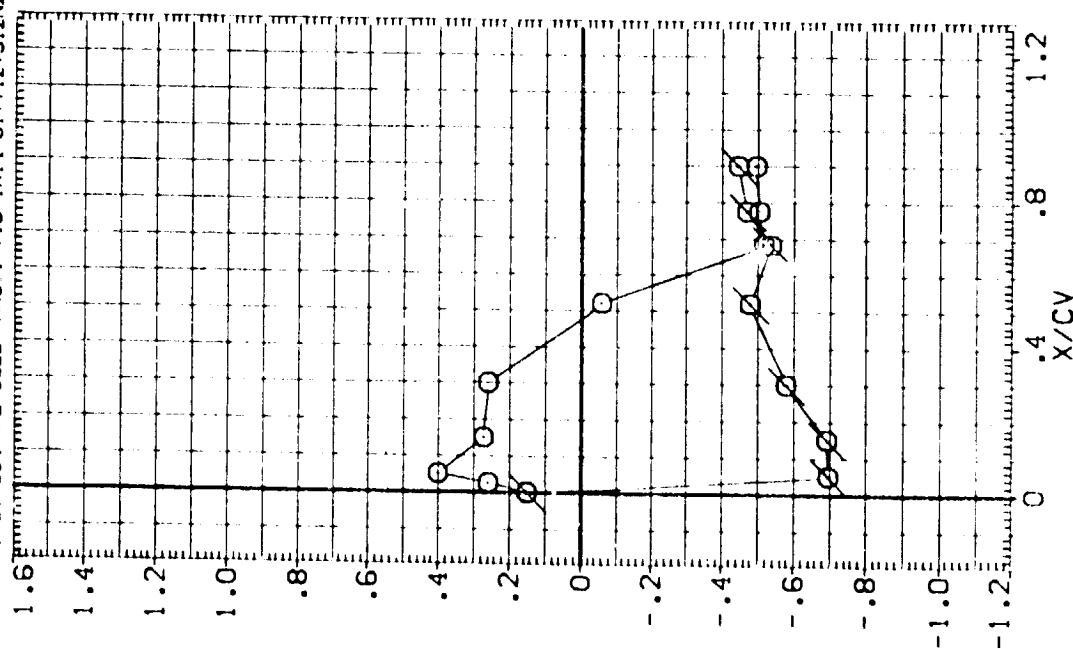
CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES



SYMBOL ALPHA Z/BV BETA  
 O 7.910 .925 -7.920

PARAMETRIC VALUES  
 MACH 1.250 ELEVON .000  
 RUDDER .000 SPDRK .000

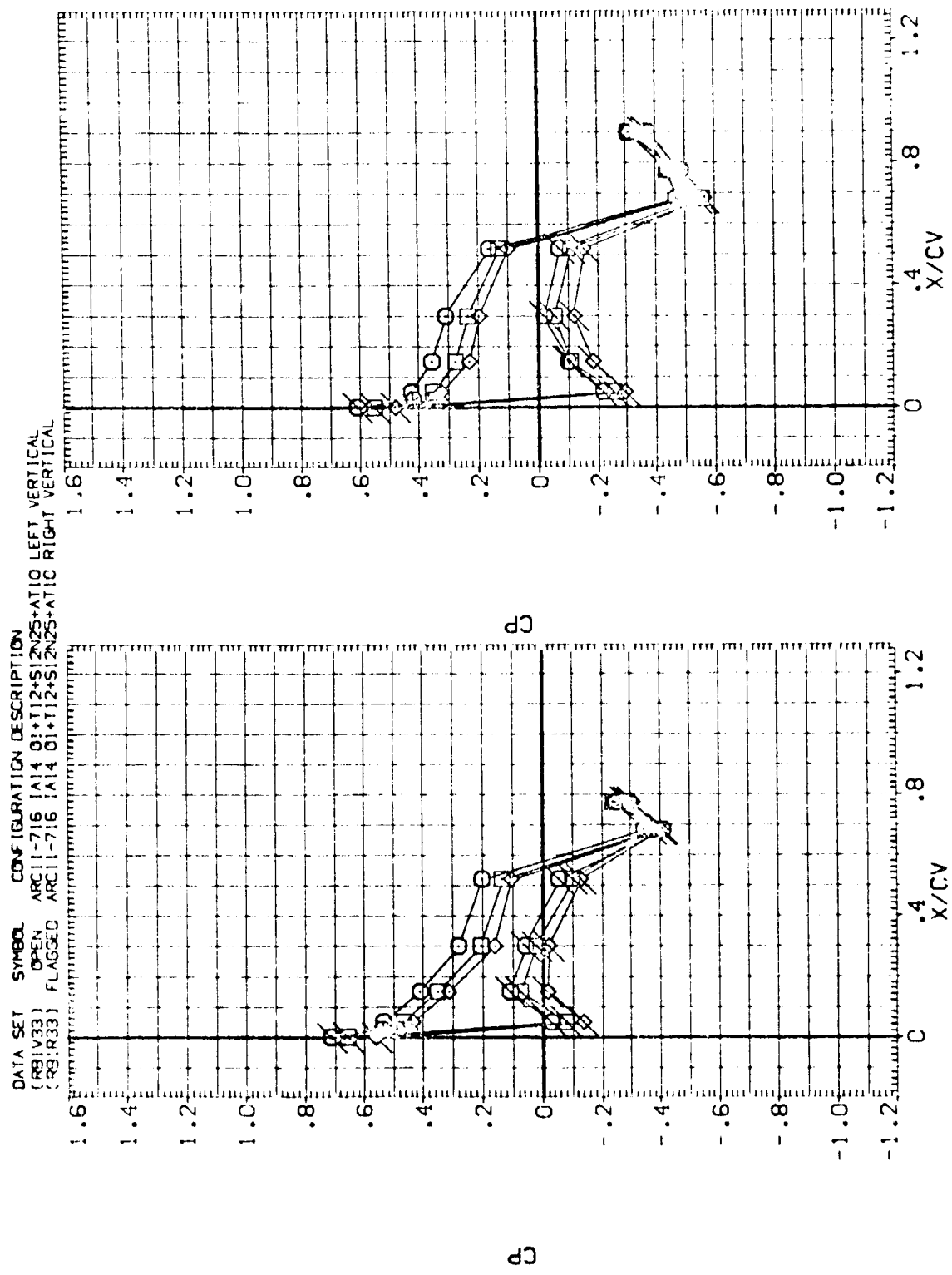
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RB1V33) OPEN ARC11-716 [A14 01+112-S12N25+AT10 LEFT VERTICAL  
 (RB1R33) FLAGGED ARC11-716 [A14 01+112-S12N25+AT10 RIGHT VERTICAL



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

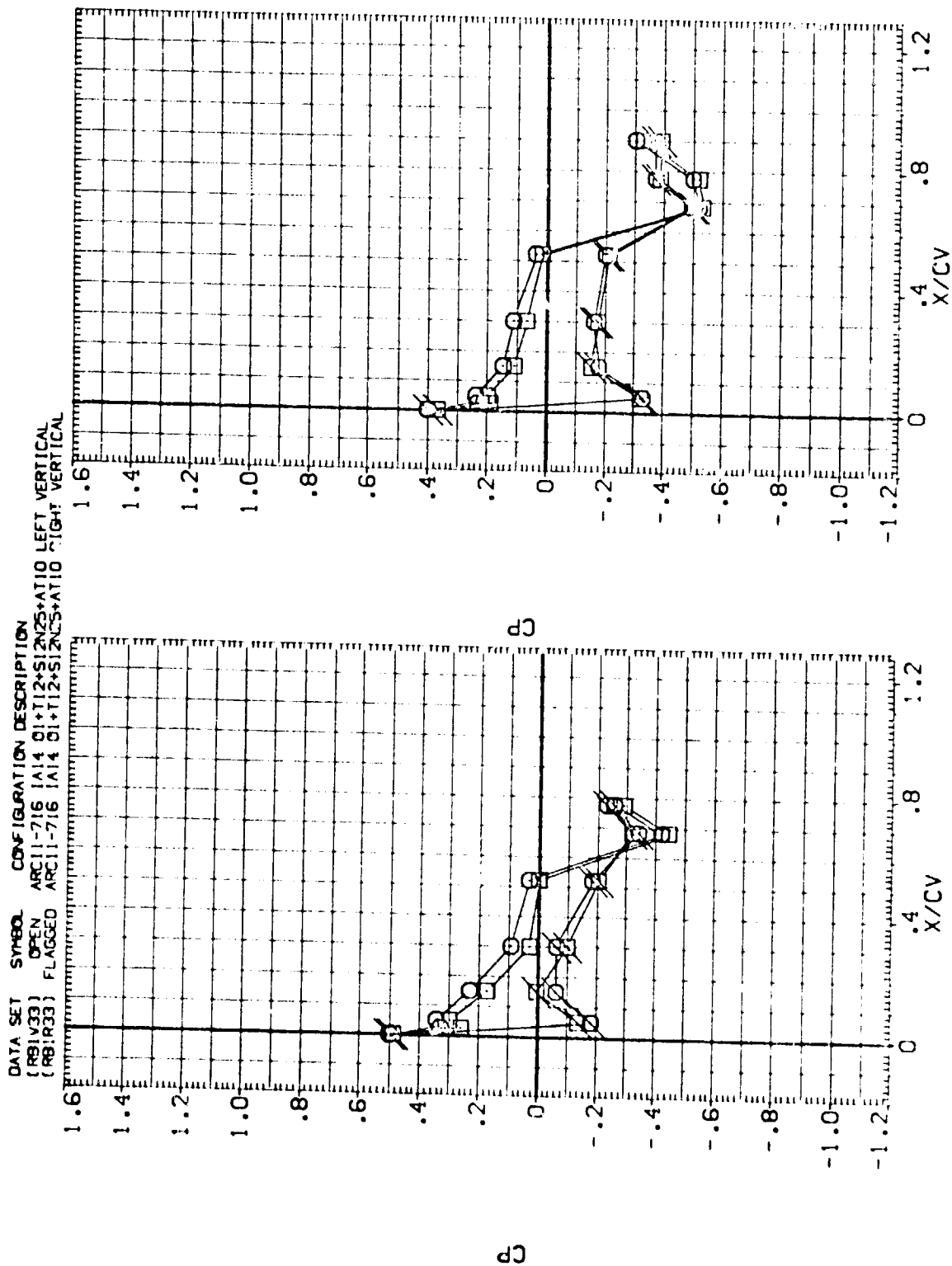
PARAMETRIC VALUES  
 MACH 1.250 ELEVON .000  
 RUDDER .000 SPEED .000

SYMBOL ALPHA0 Z/BV BETA0  
 -8.220 .158 -3.960  
 -4.200 .316  
 -7.60



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

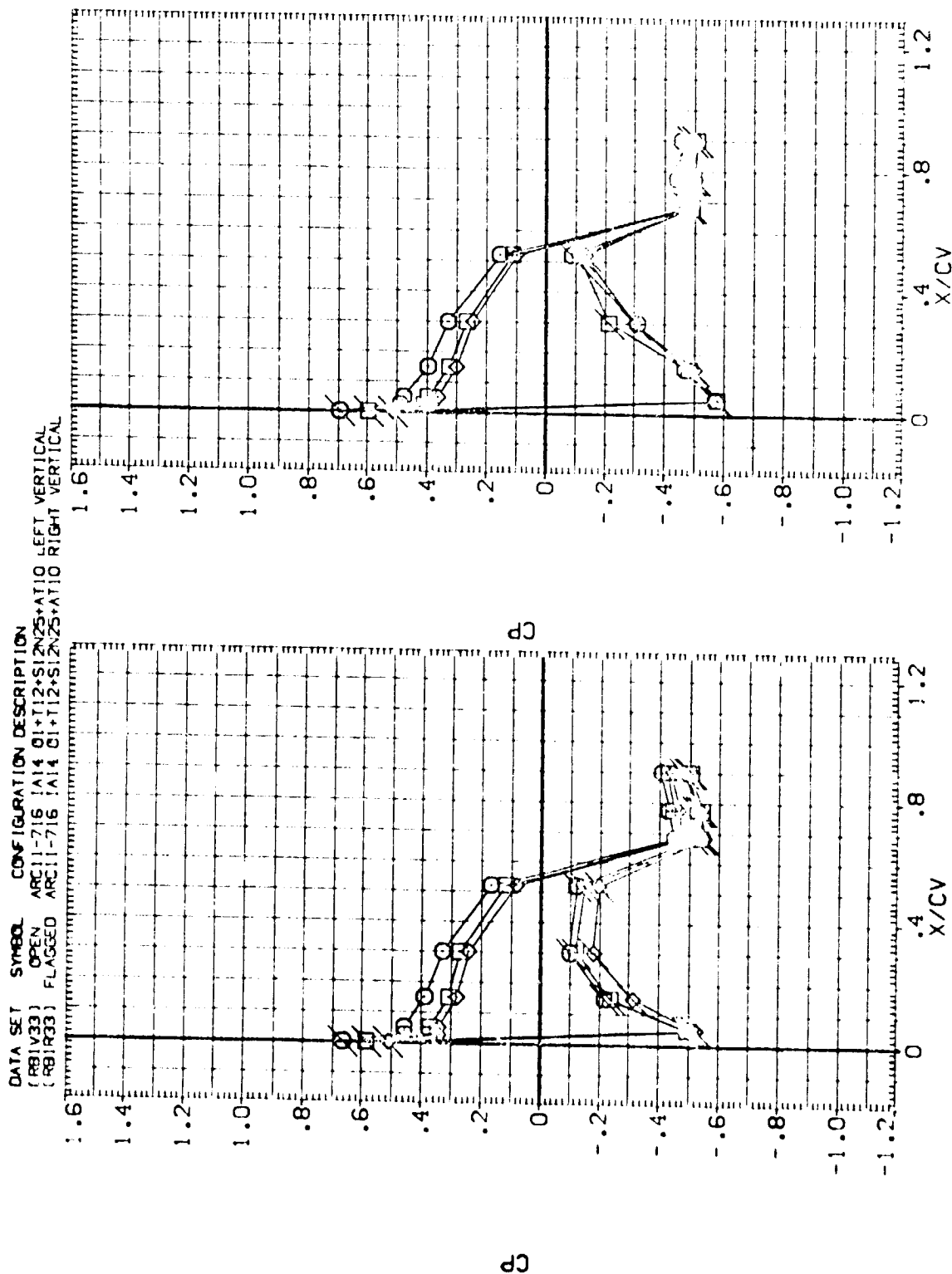
SYMBOL	ALPHA	Z/BV	BETA	MACH	PARAMETRIC VALUES
○ □	4.300	.158	-3.960	RUDDER	1.250 ELEVON
	7.910	.316			.000 SPOBRK



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES



SYMBOL	ALPHA	Z/BV	BETA	MACH	PARAMETRIC VALUES
○	-8.220	.600	-3.950	RUDDER	1.250 ELEVON .000
□	-4.200	.840			.000 SPOON .000
◇	-7.760				



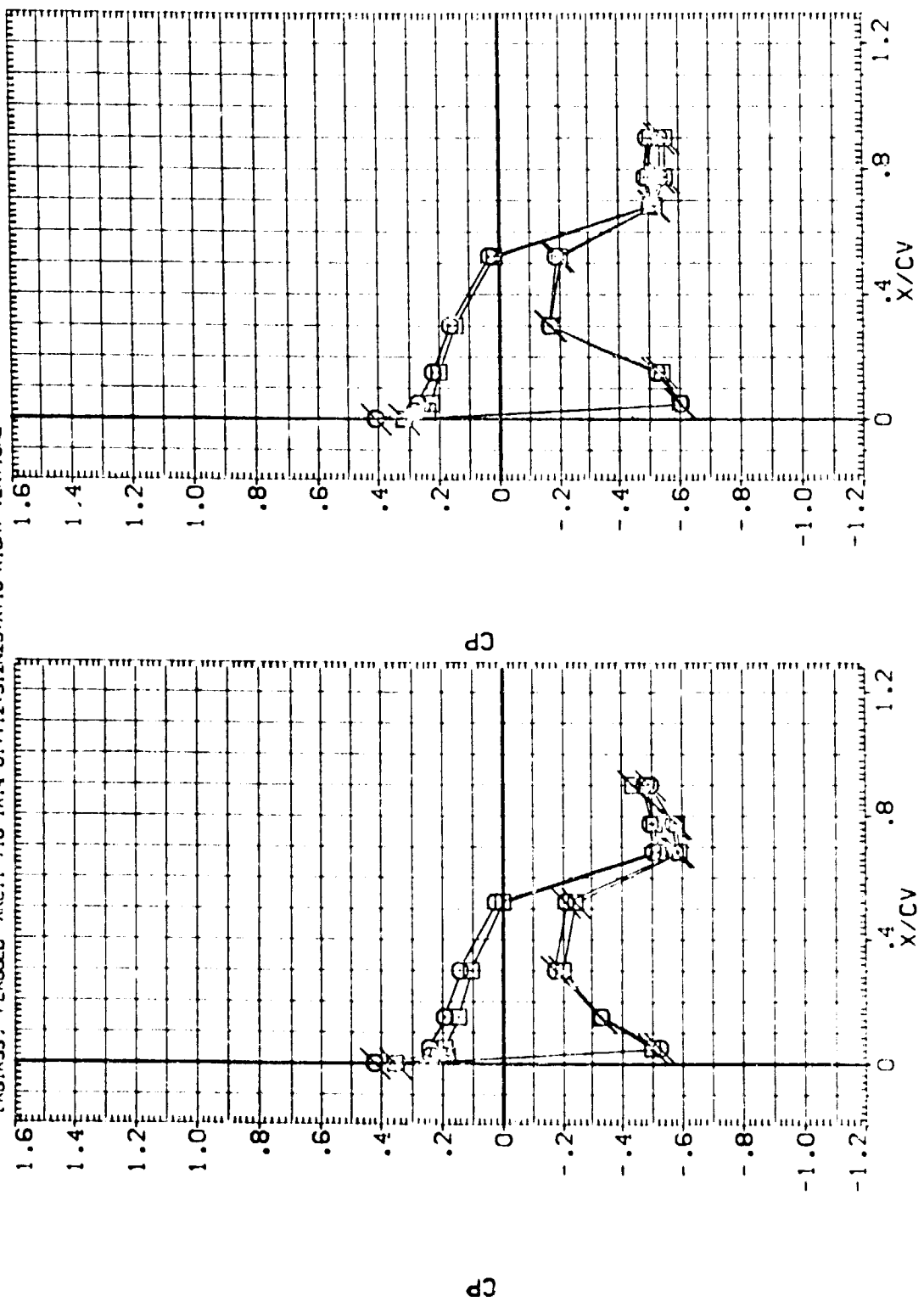
CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

PARAMETRIC VALUES  
 1.250 ELEVEN .000  
 .000 SPOBRK .000

MACH  
 RUDDER

SYMBOL ALPHA0 Z/BV BETA0  
 4.300 .600 -3.960  
 7.910 .840

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R81V33) OPEN ARC11-716 [A14 01+T12-S12N25+AT10 LEFT VERTICAL  
 (R81R33) FLAGGED ARC11-716 [A14 01+T12-S12N25+AT10 RIGHT VERTICAL

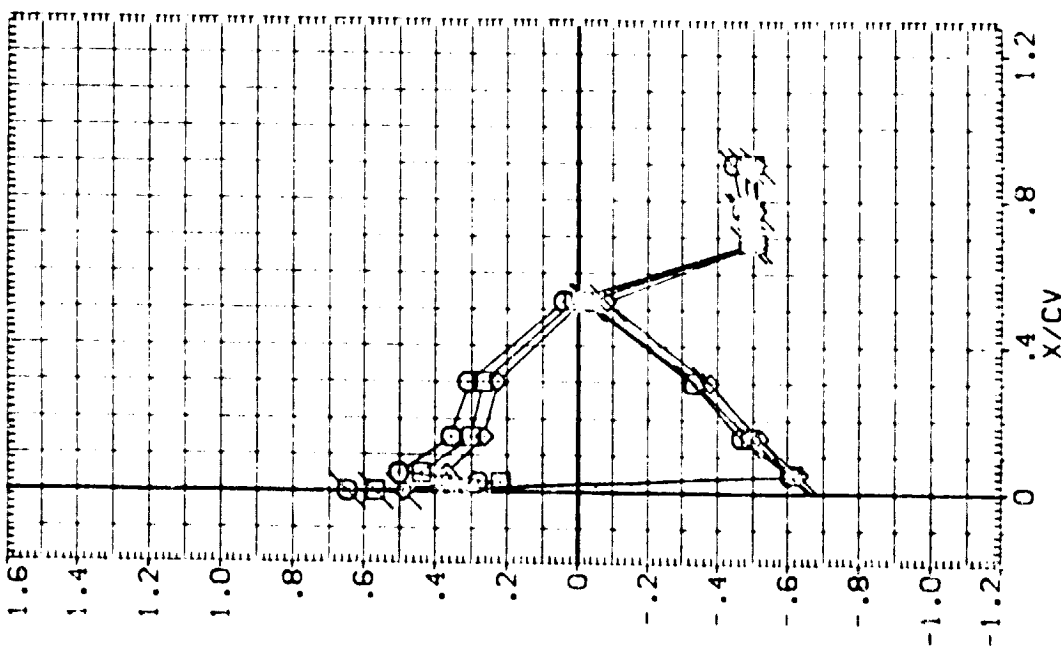


CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

PARAMETRIC VALUES  
 MACH 1.250 ELEVON .000  
 RUDDER .000 SPOILER .000

SYMBOL ALPHA0 Z/BV BETA0  
 -8.220 .925 -3.960  
 -4.200  
 -1.760

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R81V33) OPEN ARC11-716 (A14 01+T12+S12)ZS+AT10 LEFT VERTICAL  
 (R81R33) FLAGGED ARC11-716 (A14 01+T12+S12)ZS+AT10 RIGHT VERTICAL



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

SYMBOL  
□ □

ALPHA  
4.300  
7.910

Z/BV  
.925

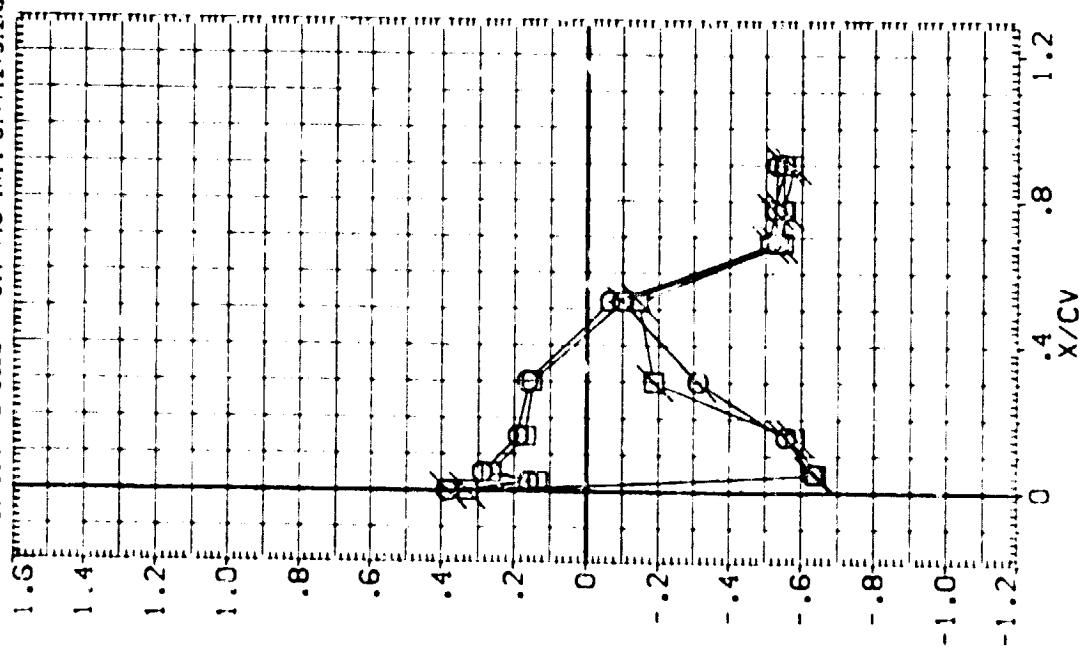
BETA  
-3.960

MACH  
1.250

ELEVON  
.000

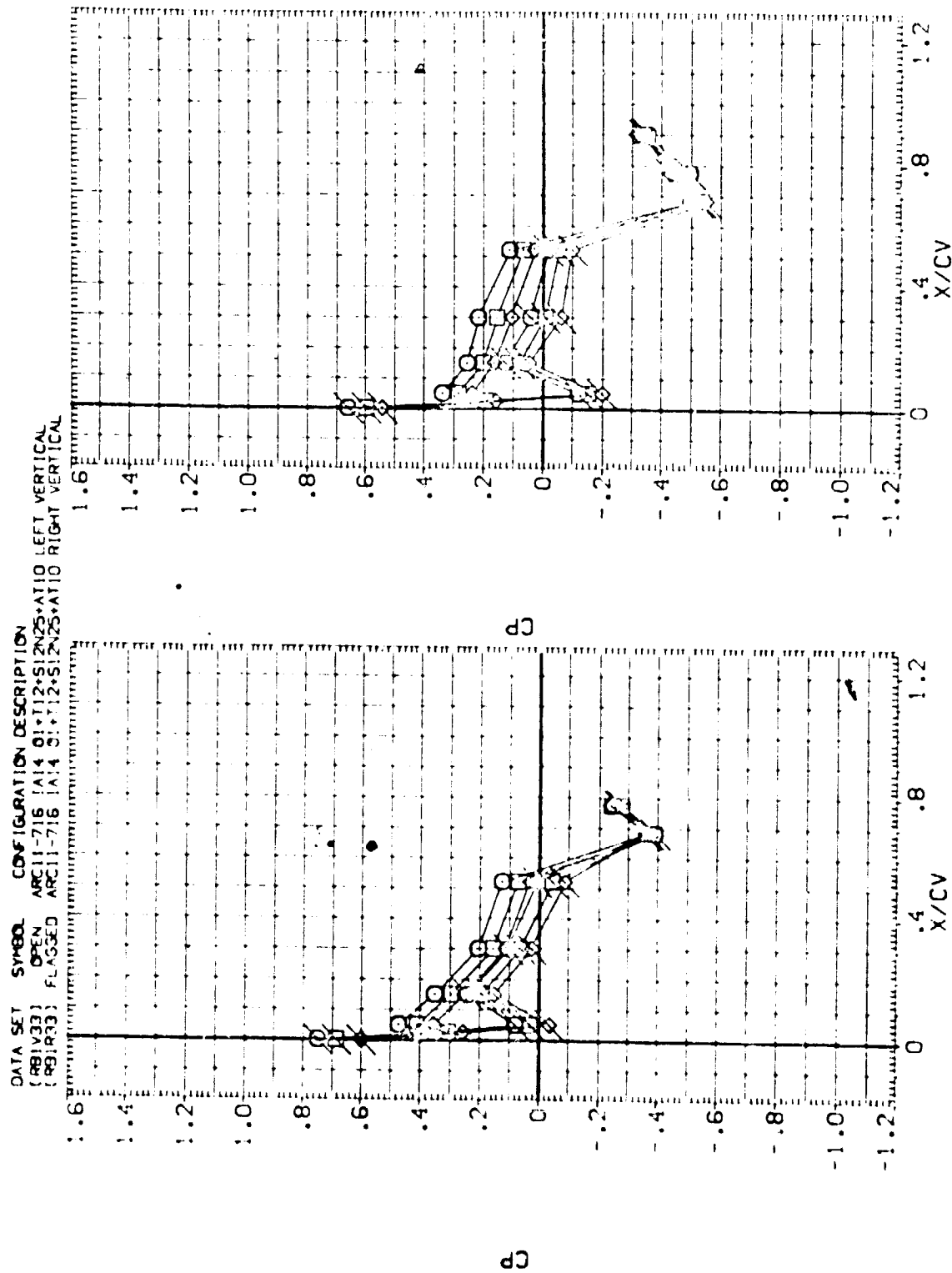
SPORRK  
.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
(R91V33) OPEN ARC11-716 A14 01+T12+S1.2N25+AT10 LEFT VERTICAL  
(R91R33) FLAGGED ARC11-716 A14 01+T12+S1.2N25+AT10 RIGHT VERTICAL



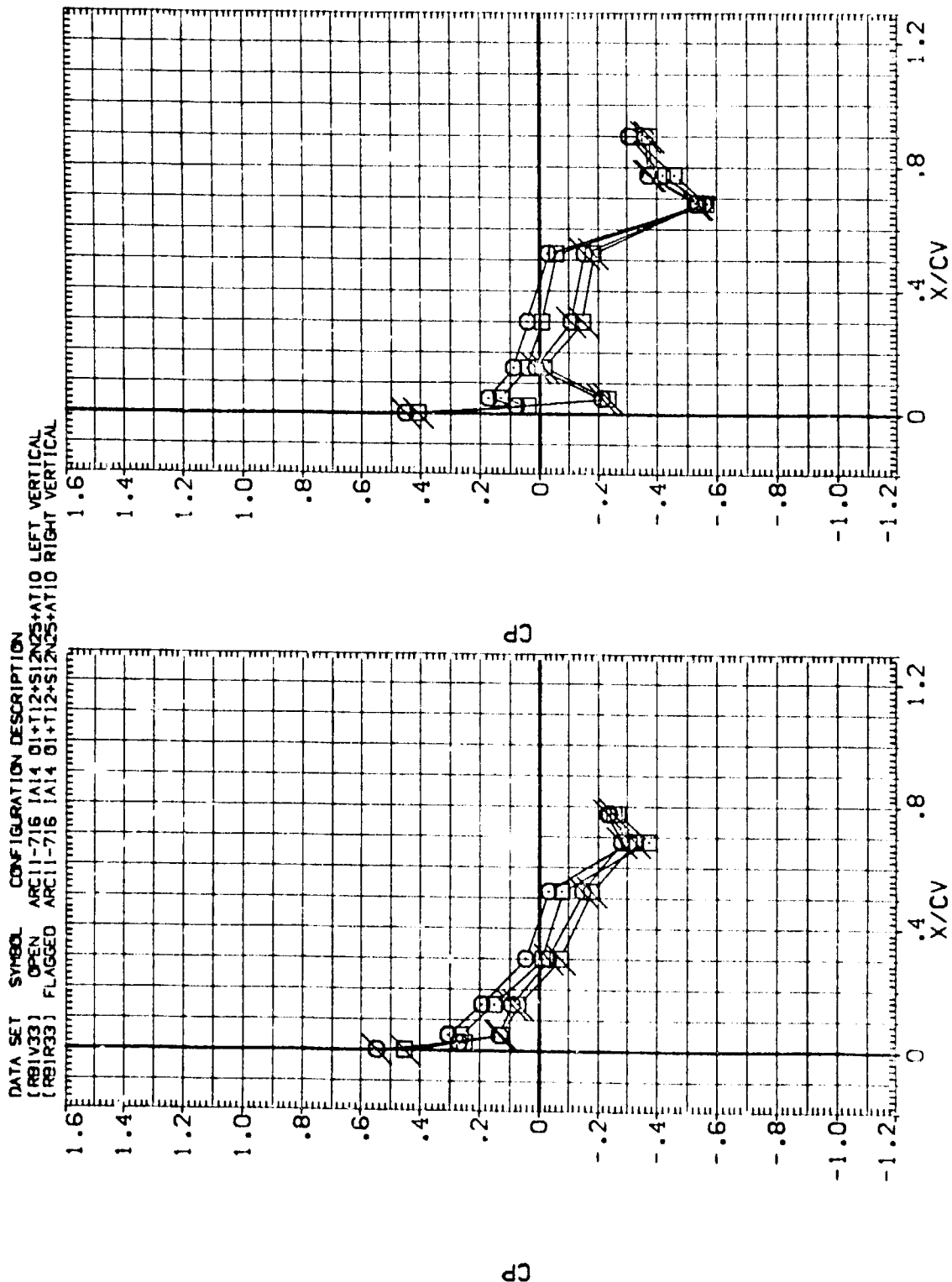
CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

SYMBOL	ALPHA	Z/BY	BETA	MACH	PARAMETRIC VALUES
○	-8.220	.158	-1.970	RUDDER	1.250 ELEVON
□	-4.200	.316			.000 SPOON
◇	-7.60				.000



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

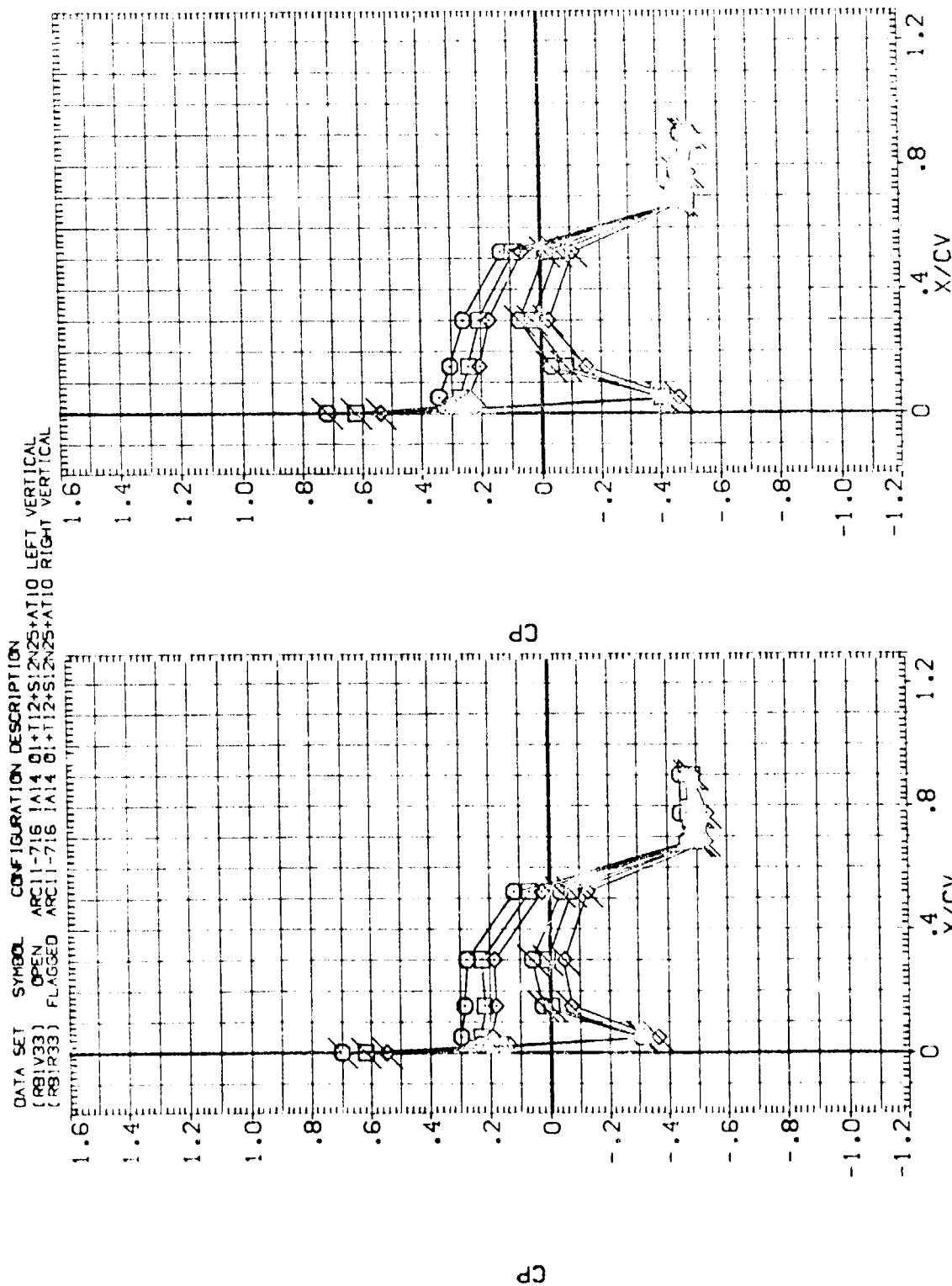
SYMBOL	ALPHA	Z/BV	BETA	MACH	PARAMETRIC VALUES
○	4.300	.158	-1.970	RUDDER	1.250 ELEVON
□	7.910	.316			.000 SPOBRK
					.000



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

PARAMETRIC VALUES  
 MACH 1.250 ELEVON .000  
 RUDDER .000

SYMBOL ALPHA Z/BV BETA  
 O -8.220 .600 -1.970  
 I -4.200 .840  
 ◇ -7.60



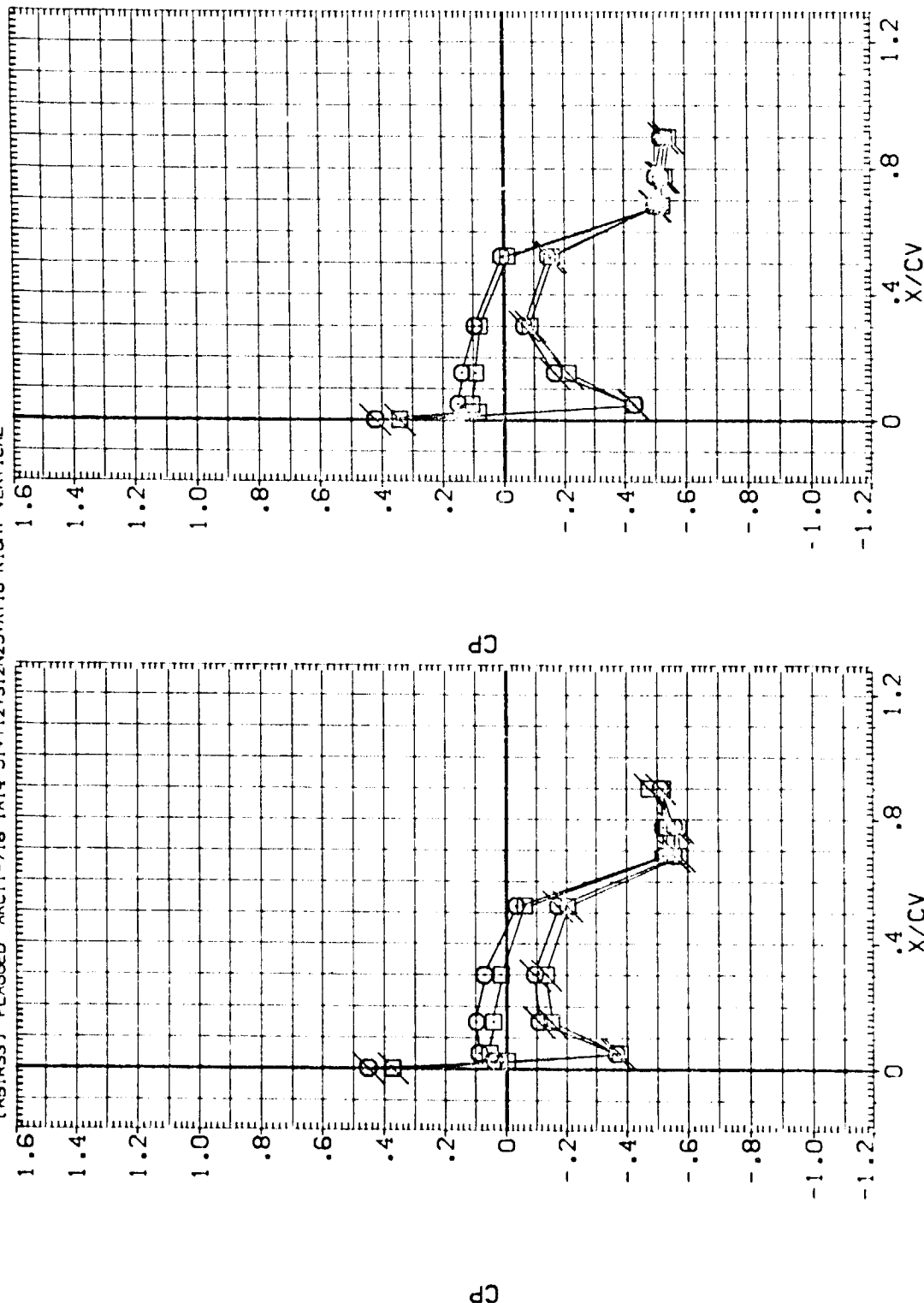
CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

PARAMETRIC VALUES  
 1.250 ELEVON  
 .000 SPOBRK

MACH  
 RUDDER

SYMBOL ALPHA0 Z/BV BETA0  
 4.300 .600 -1.970  
 7.910 .840

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R81V33) OPEN ARC11-716 [A14 01+T12+S12N25+ATIO LEFT VERTICAL  
 (R81R33) FLAGGED ARC11-716 [A14 01+T12+S12N25+ATIO RIGHT VERTICAL



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

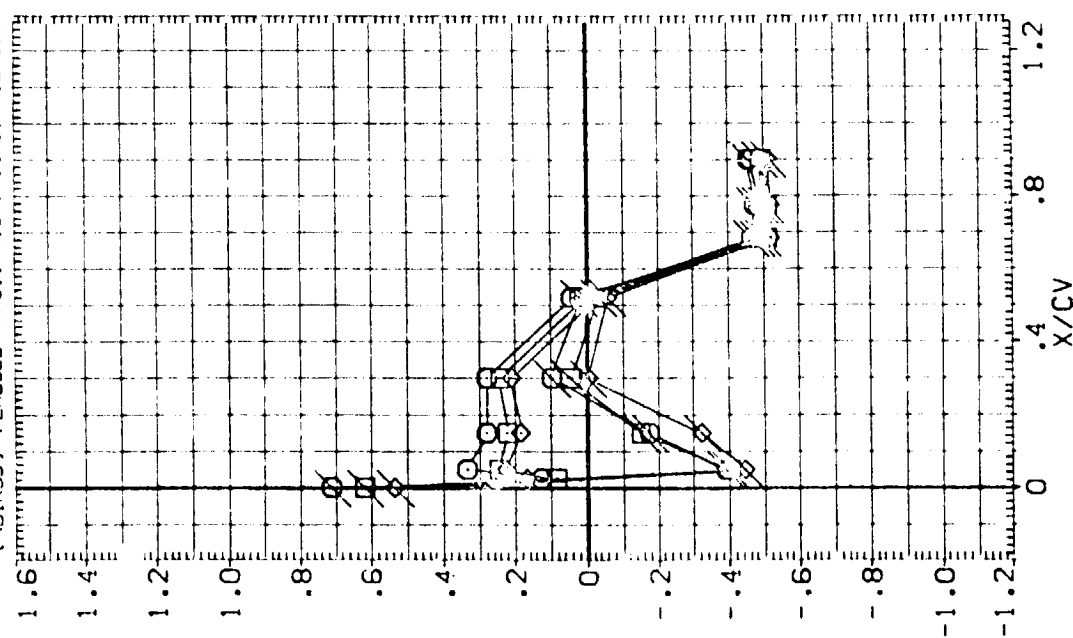


PARAMETRIC VALUES  
 1.250 ELEVON  
 .000 SPOILER

MACH  
 RUDDER

SYMBOL ALPHA0 Z/BV BETA0  
 O -8.220 .925 -1.970  
 □ -4.200  
 ◇ -.760

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RB1V33) OPEN ARC11-716 1A14 01+T12+S12N25+AT10 LEFT VERTICAL  
 (RB1R33) FLAGGED ARC11-716 1A14 01+T12+S12N25+AT10 RIGHT VERTICAL



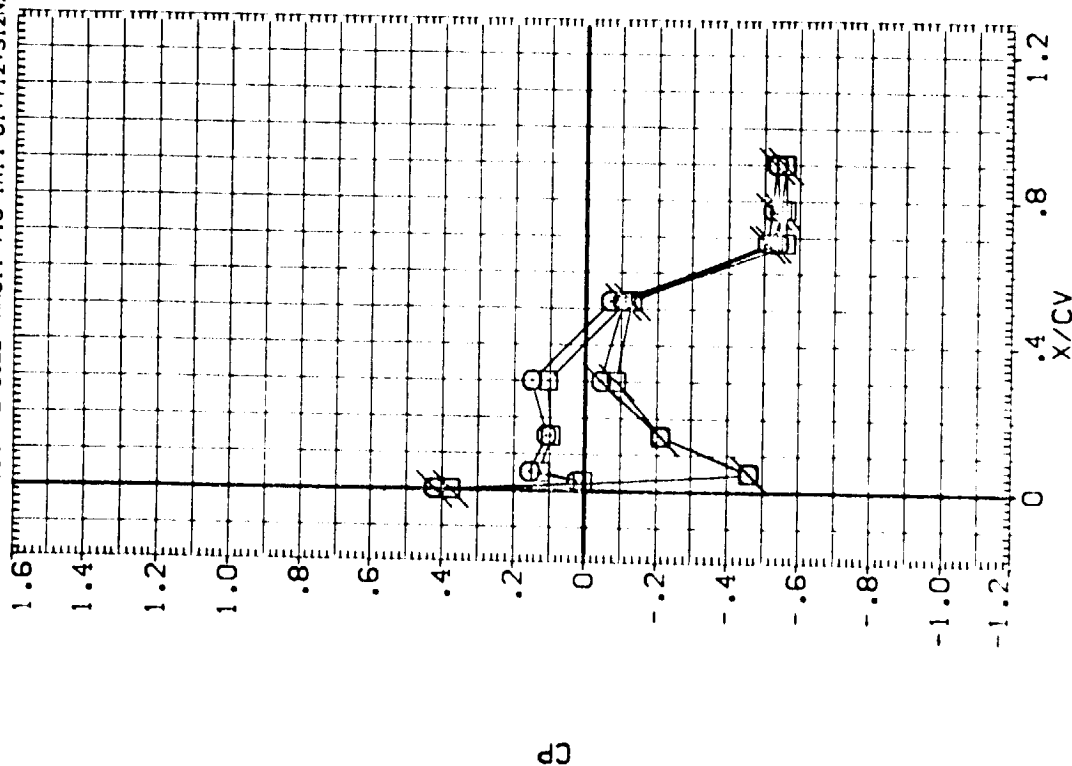
CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

SYMBOL  
□ □

ALPHA0 4.300 7.910  
Z/BV .925  
BETA0 -1.970

MACH 1.250  
RUDDER .000  
PARAMETRIC VALUES  
ELEVON .000  
SPORRK .000

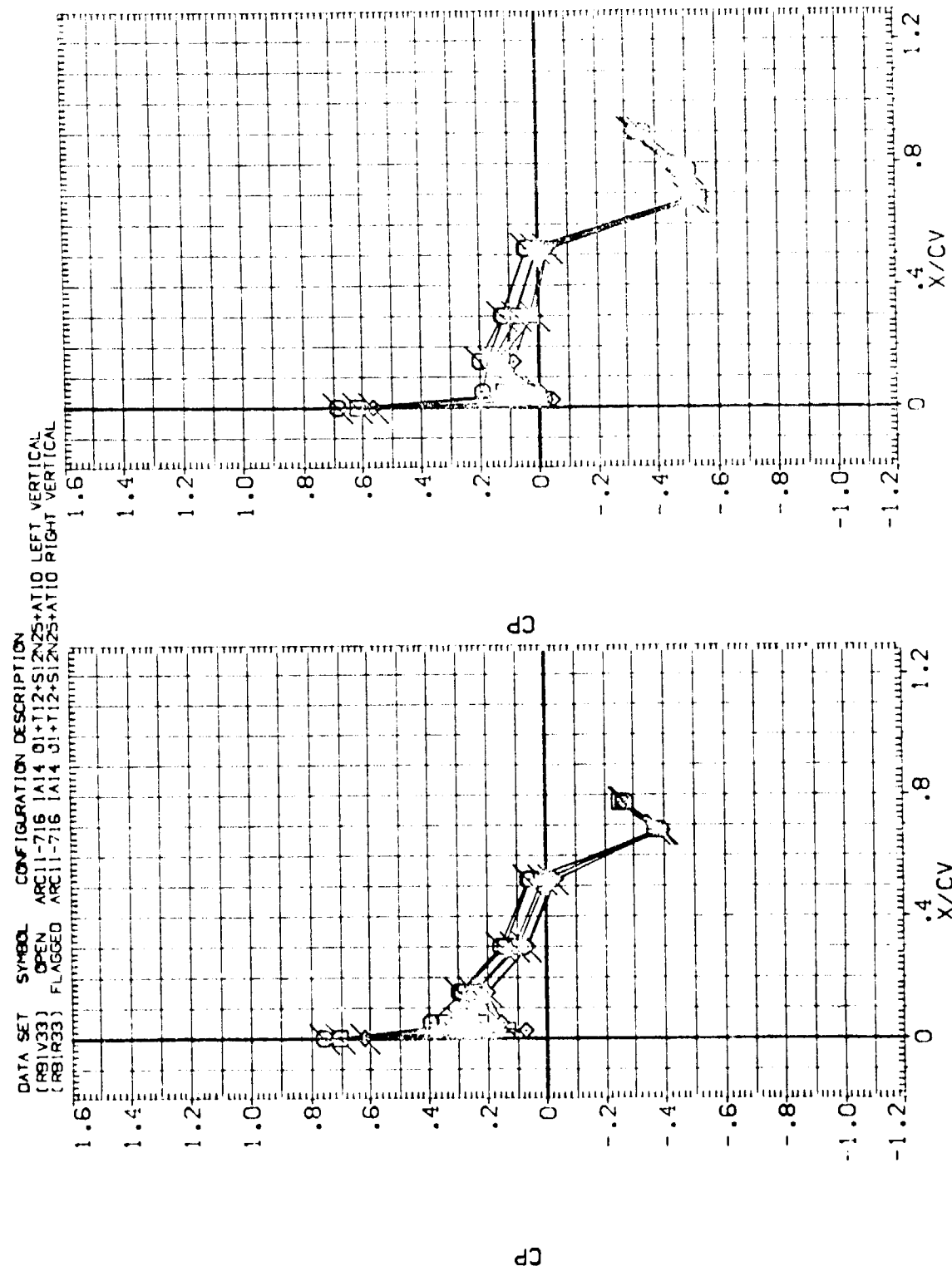
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
(RB1V33) OPEN ARC11-716 1A14 01+T12+S12N25+AT10 LEFT VERTICAL  
(RB1R33) FLAGGED ARC11-716 1A14 01+T12+S12N25+AT10 RIGHT VERTICAL



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

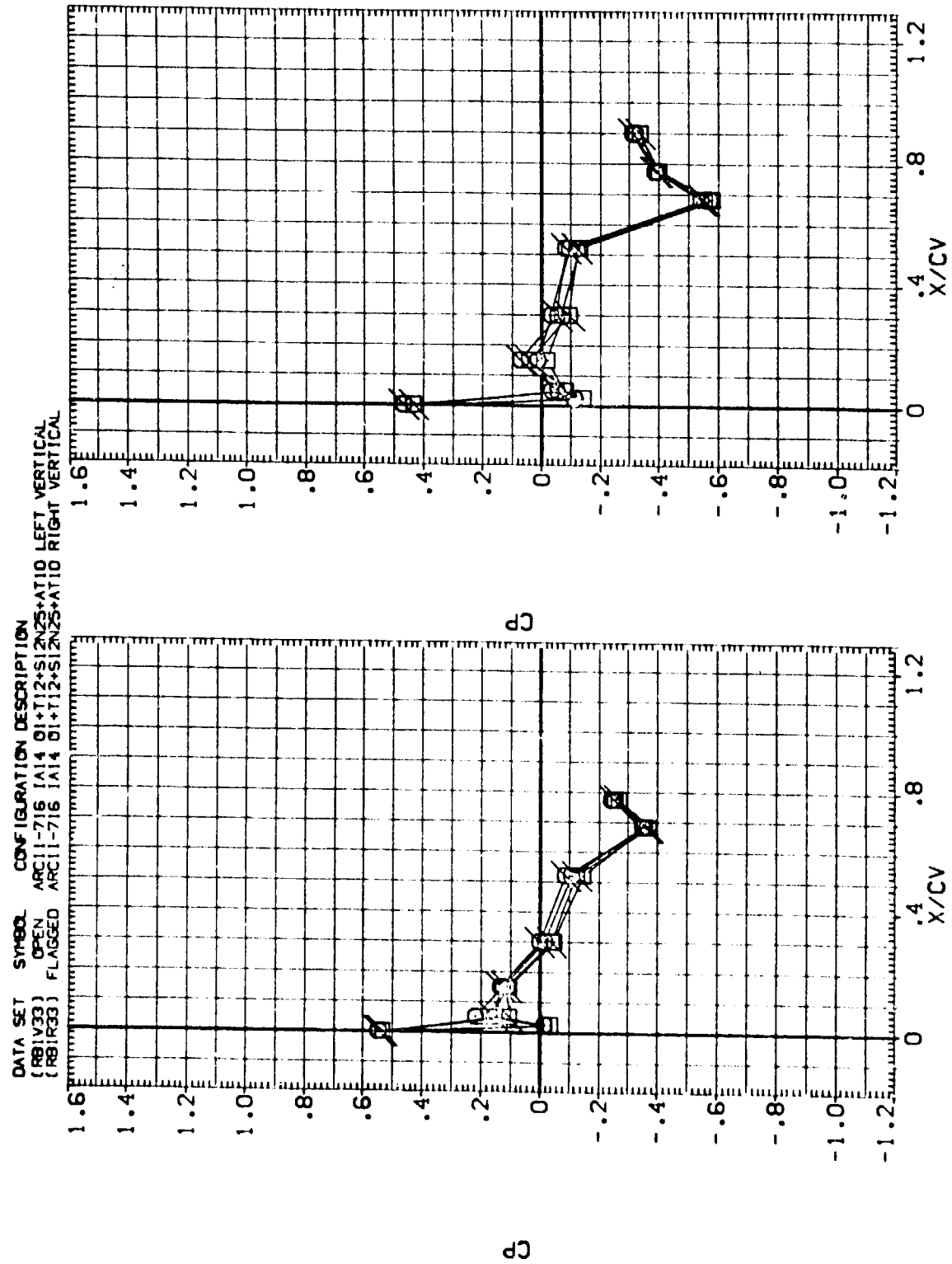
PARAMETRIC VALUES  
 MACH 1.250 ELEVON .000  
 RUDDER .000 SPDBRK .000

SYMBOL ALPHA0 Z/BV BETA0  
 -8.220 .158 .020  
 -4.200 .316  
 -1.760



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

SYMBOL	ALPHA	Z/BV	BETA	MACH	PARAMETRIC VALUES
	4.300	.158	.020		
<input type="checkbox"/>	7.910	.316		RUDER	ELEVON
				.000	.000
				.000	.000



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

PARAMETRIC VALUES  
MACH 1.250 ELEVON .000  
RUDDER .000 SPOBRK .000

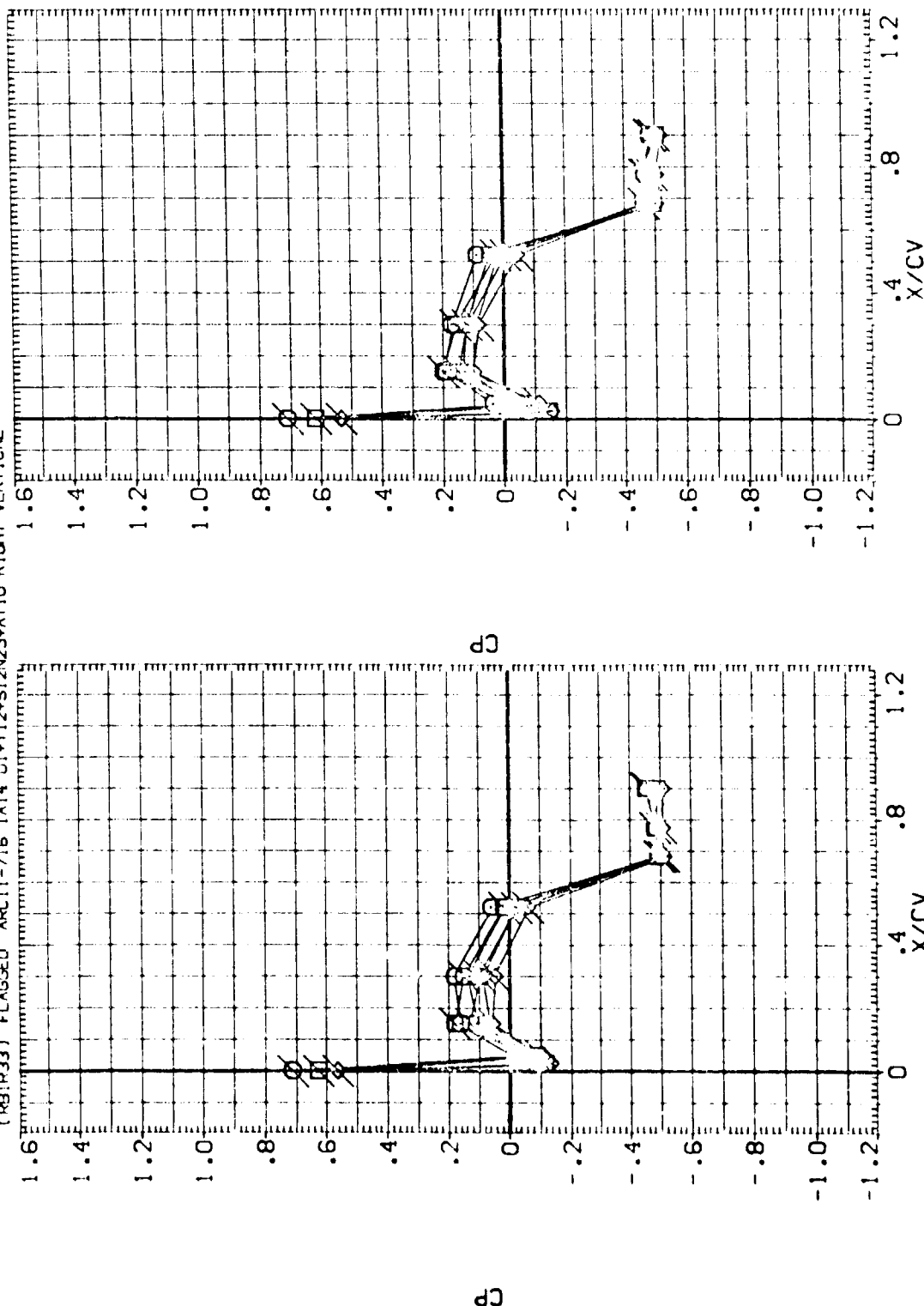
ALPHA0  
-8.220  
-4.230  
-.760

BETA0  
.020

Z/BV  
.600  
.840

SYMBOL  
□ □ □

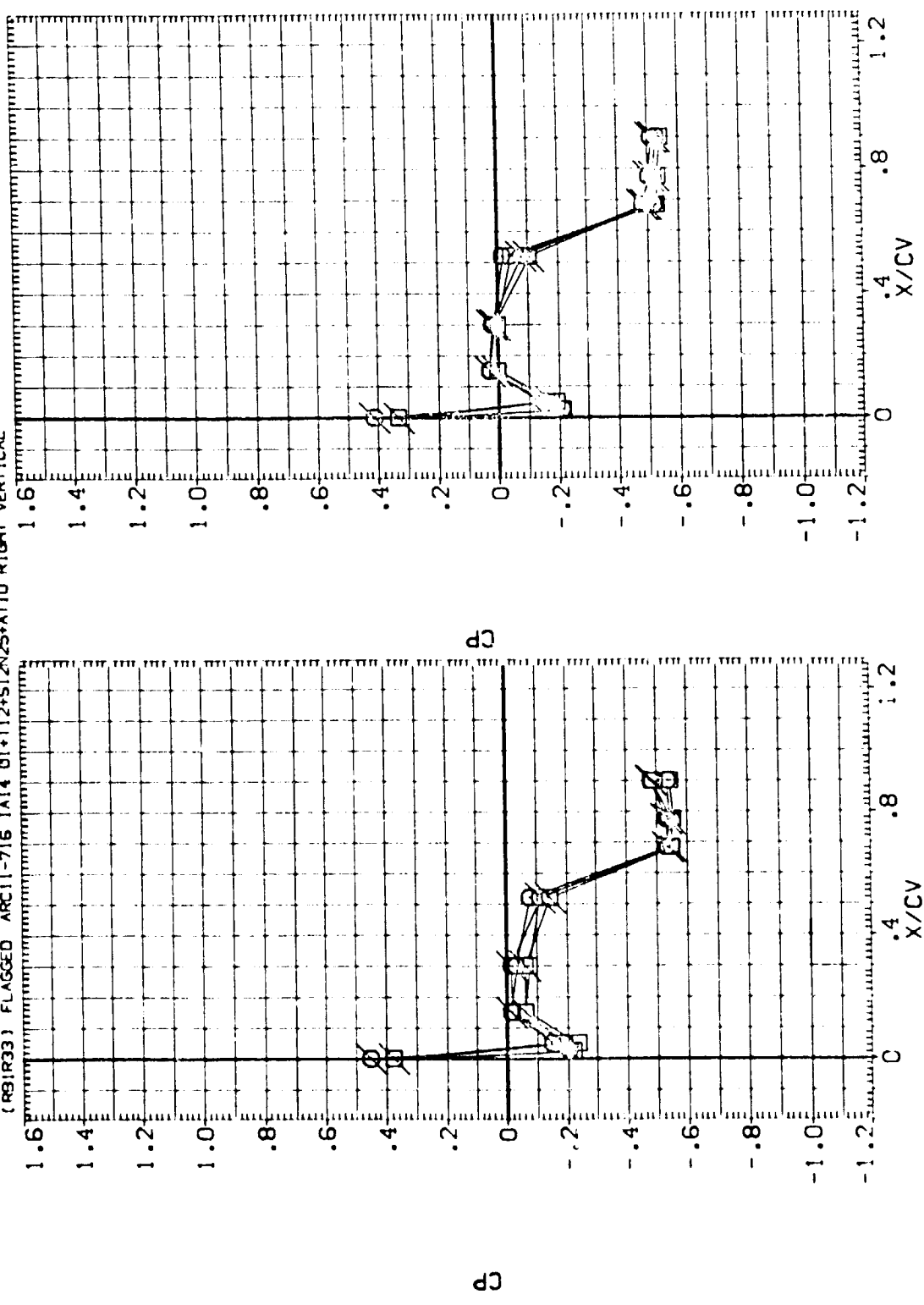
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
(RB1V33) OPEN ARC11-716 [A14 Q1+T12+S12N25+AT10 LEFT VERTICAL  
(RB1R33) FLAGGED ARC11-716 [A14 Q1+T12+S12N25+AT10 RIGHT VERTICAL



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

SYMBOL    ALPHA0    Z/BV    BETA0  
 ○    4.300    .600    .020  
 □    7.910    .840    .020

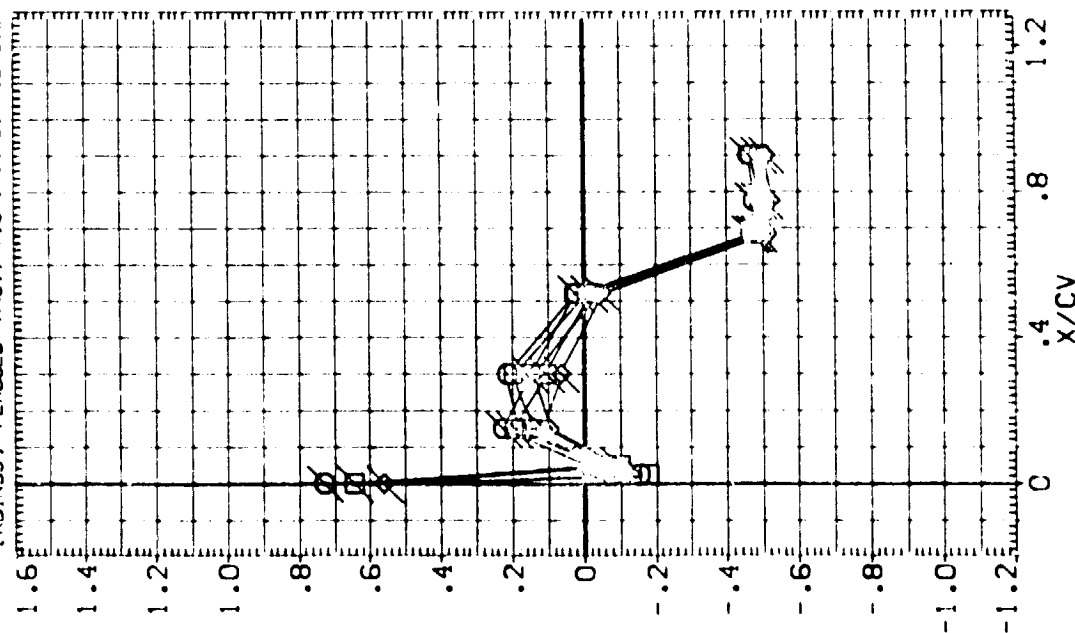
DATA SET    SYMBOL    CONFIGURATION DESCRIPTION  
 (RB1V33)    OPEN    ARC11-716 IAI4 01+112+SI2NCS+ATIO LEFT VERTICAL  
 (RB1R33)    FLAGGED    ARC11-716 IAI4 01+112+SI2NCS+ATIO RIGHT VERTICAL



PARAMETRIC VALUES  
 MACH 1.250 ELEVON .000  
 RUDDER .000

SYMBOL ALPHA0 Z/BV BETA0  
 -8.220 .925 .020  
 -4.200  
 -7.760

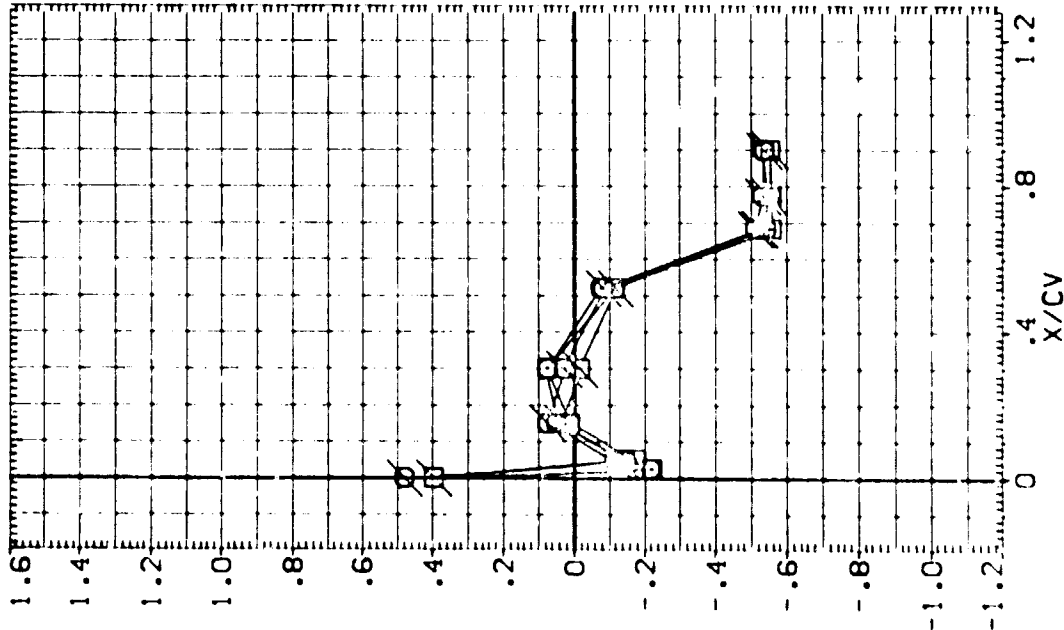
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RB1V33) OPEN ARC11-716 [A14 0] T12+S12N25+AT10 LEFT VERTICAL  
 (RB1R33) FLAGGED ARC11-716 [A14 0] T12+S12N25+AT10 RIGHT VERTICAL



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

SYMBOL	ALPHA0	Z/BV	BETA0	MACH	PARAMETRIC VALUES
○	4.300	.925	.020	RUDDER	1.250 ELEVON .000
□	7.910				.000 SPOILER .000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RB1V33)	OPEN	ARC11-716  A14 01+112+S12N25+AT10 LEFT VERTICAL
(RB1R33)	FLAGGED	ARC11-716  A14 01+112+S12N25+AT10 RIGHT VERTICAL



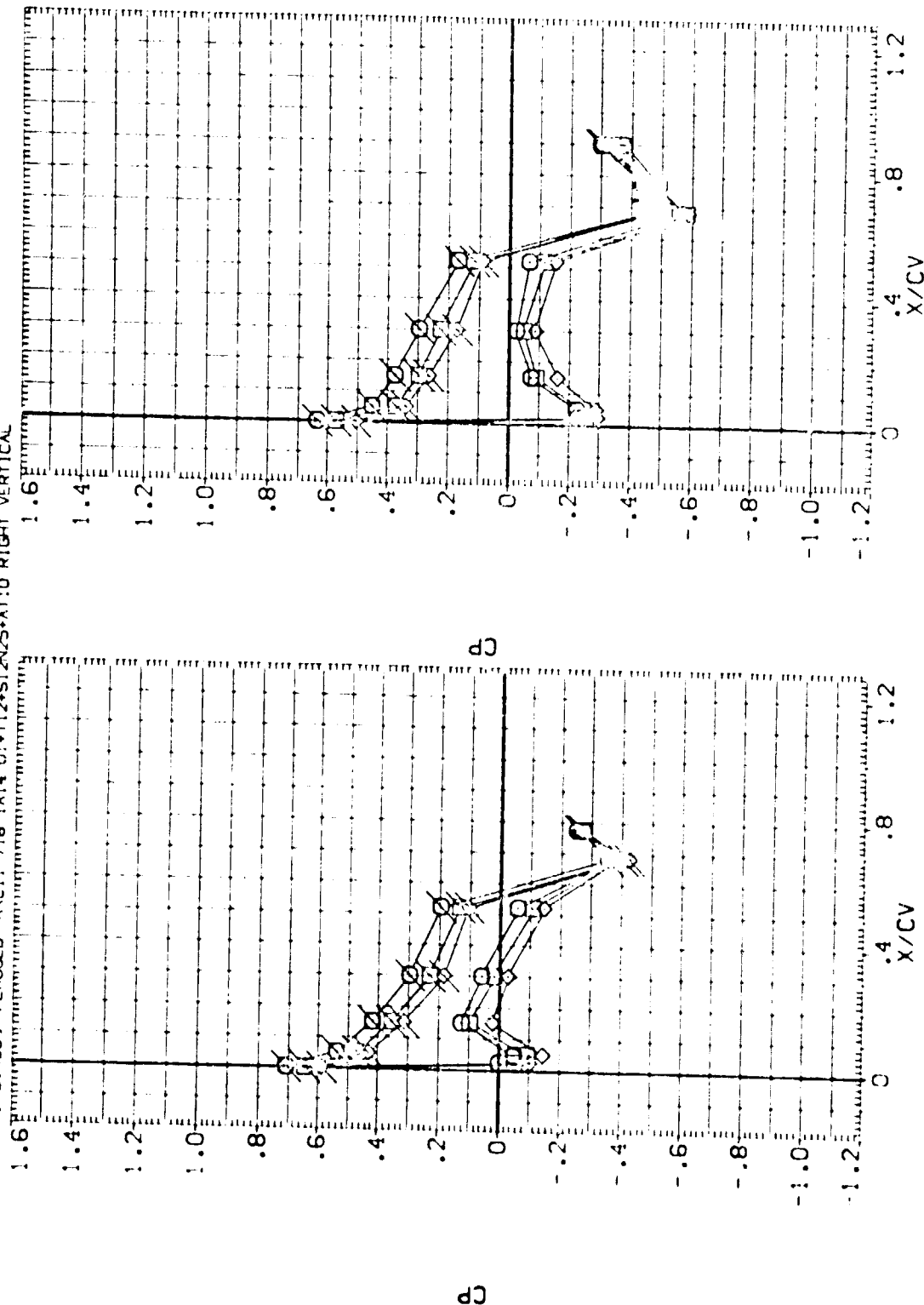
CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES



SYMBOL ALPHA0 Z/BV BETA0  
 O -8.220 .158 4.080  
 I -4.200 .316  
 D -7.60

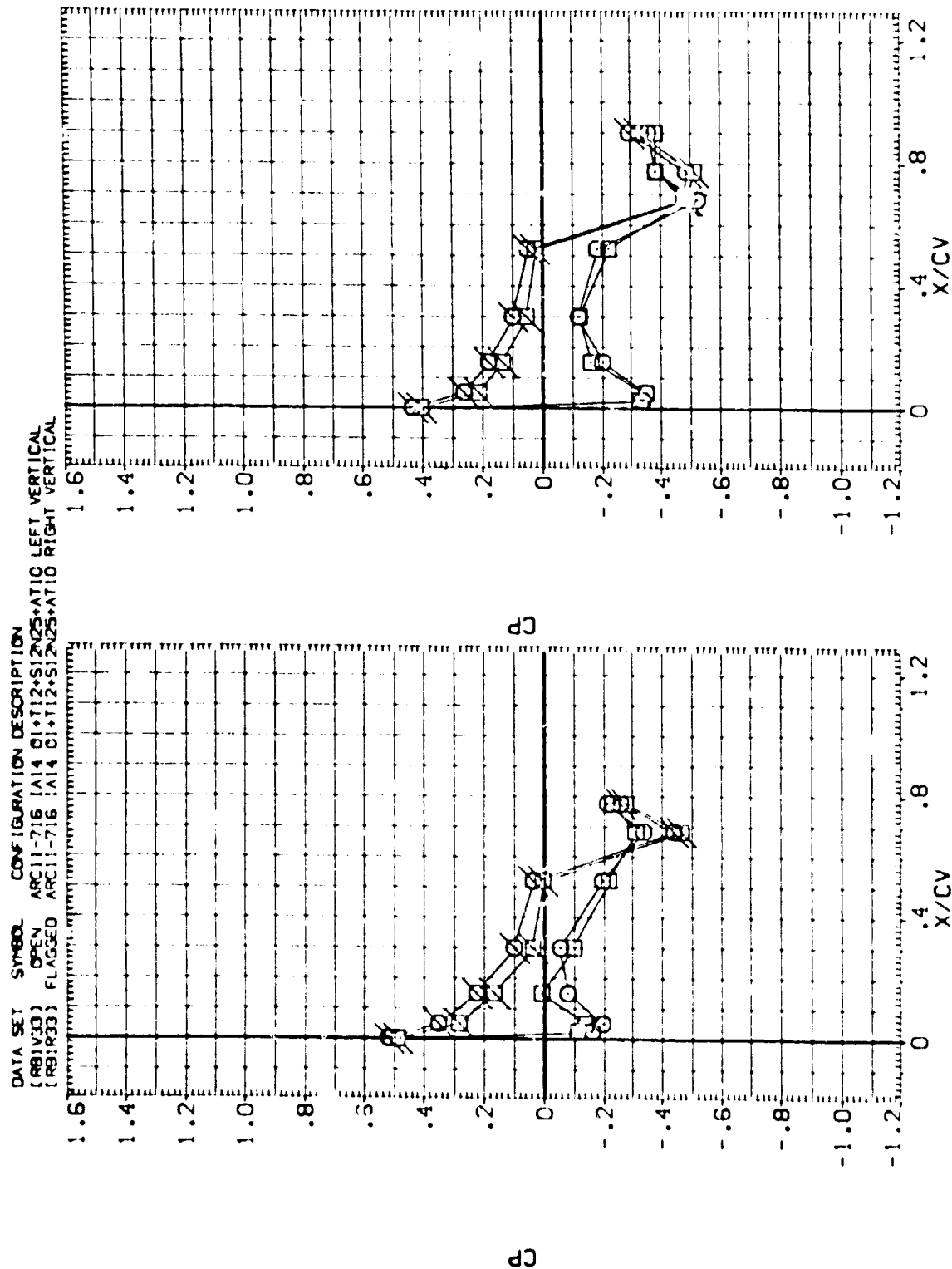
PARAMETRIC VALUES  
 MACH 1.250 ELEVON .000  
 FLUDD .000 SPDBRK .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RB1V33) OPEN ARC11-716 [A14 0] T12-S12N25+AT10 LEFT VERTICAL  
 (RB1R33) FLAGGED ARC11-716 [A14 0] T12-S12N25+AT10 RIGHT VERTICAL



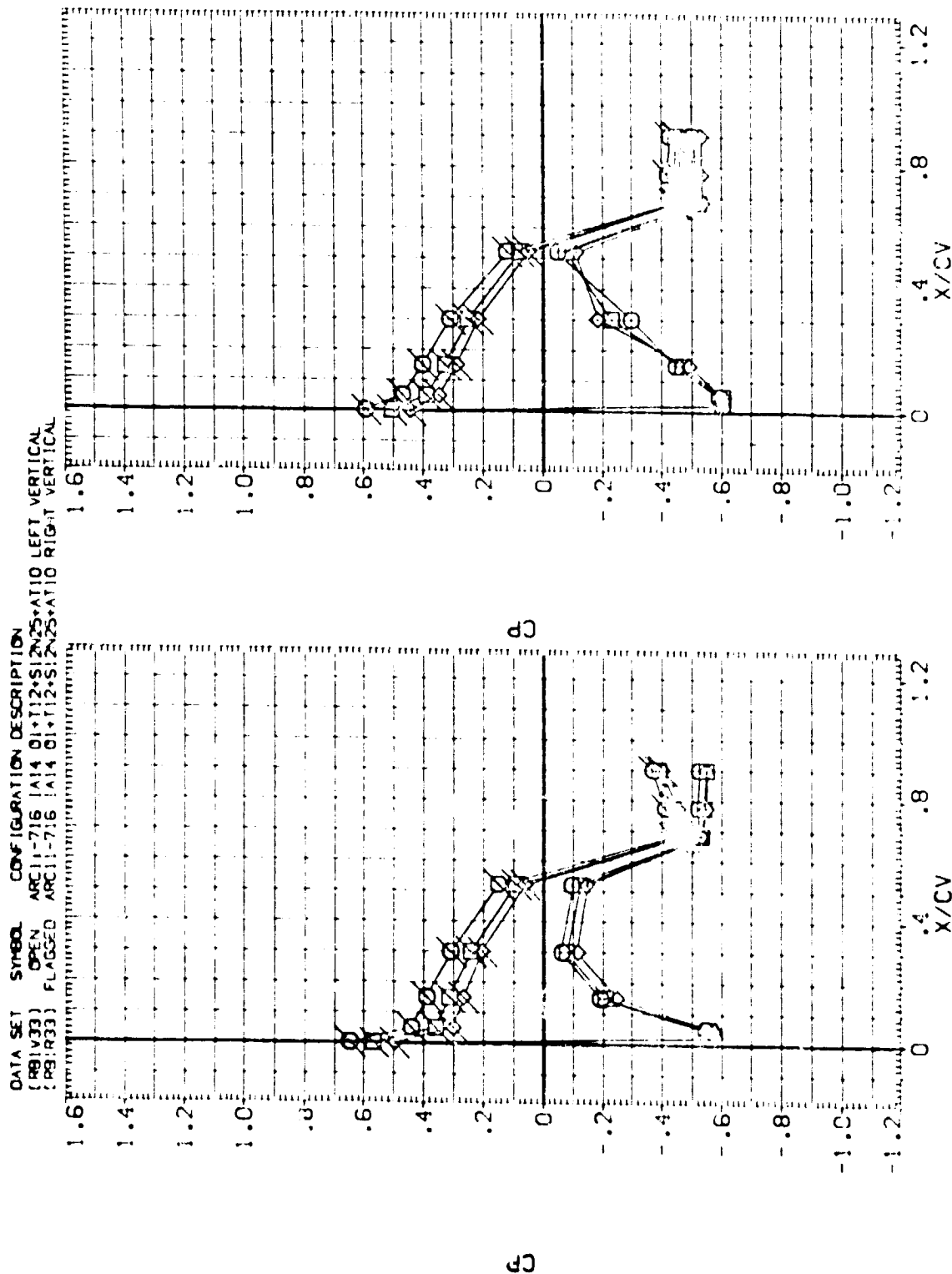
CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

SYMBOL	ALPHA	Z/BV	BETAC	MACH	PARAMETRIC VALUES
○	4.30C	.158	4.080	ROOTER	1.250 ELEVON
□	7.91C	.316			000 SPEED
					000



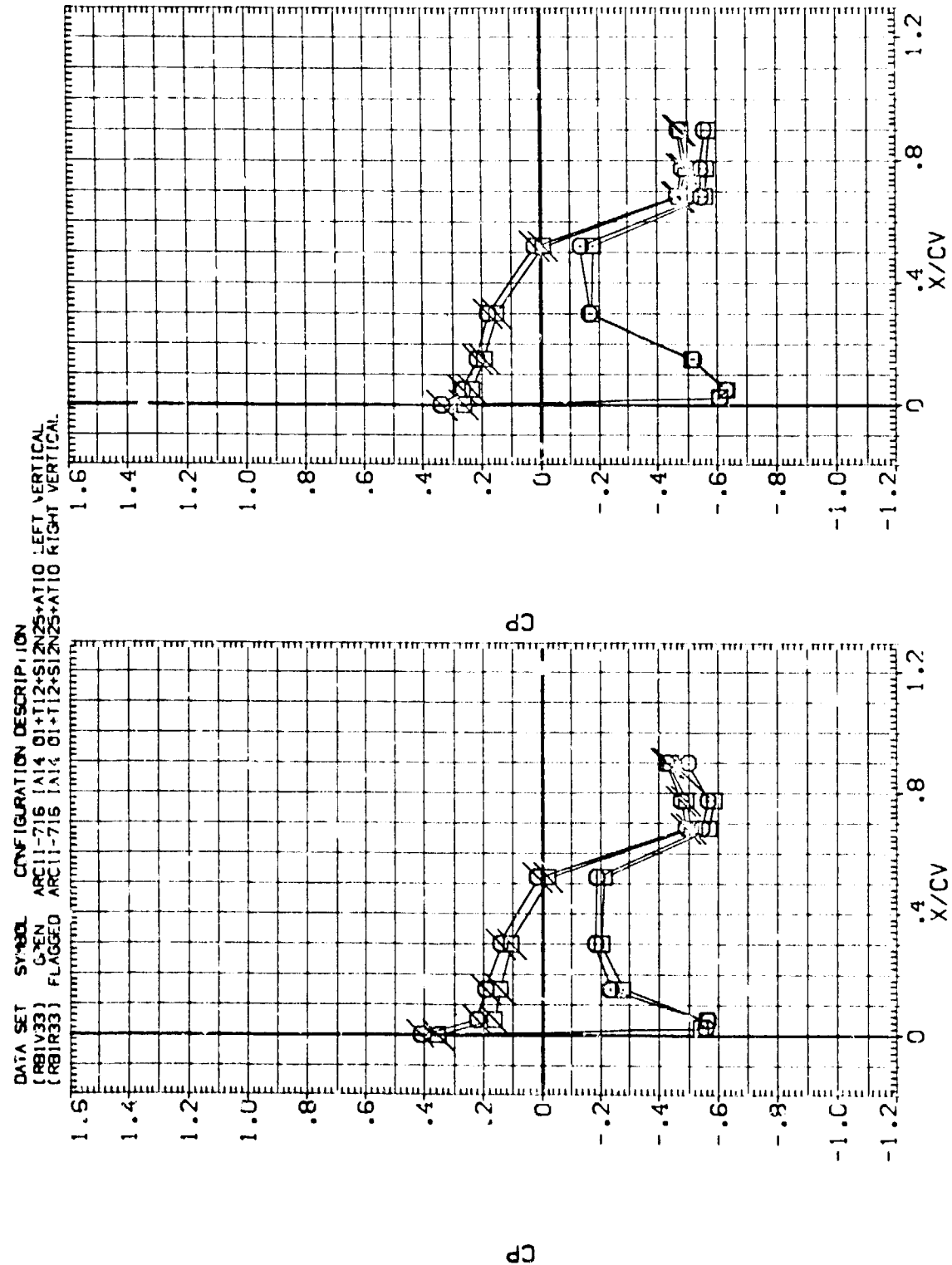
PARAMETRIC VALUES  
MACH 1.250 ELEVON .000  
RUDDER .000 SPOILER .000

SYMBOL ALPHA Z/BV BETA  
○ -8.230 .500 4.080  
□ -4.200 .840  
◇ -7.60



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

SYMBOL	ALPHA	Z/EV	BETA	MACH	PARAMETRIC VALUES
○	4.300	.600	4.080	RUDER	1.250 ELEVON .000
□	7.910	.840			.000 SPOBRK .000



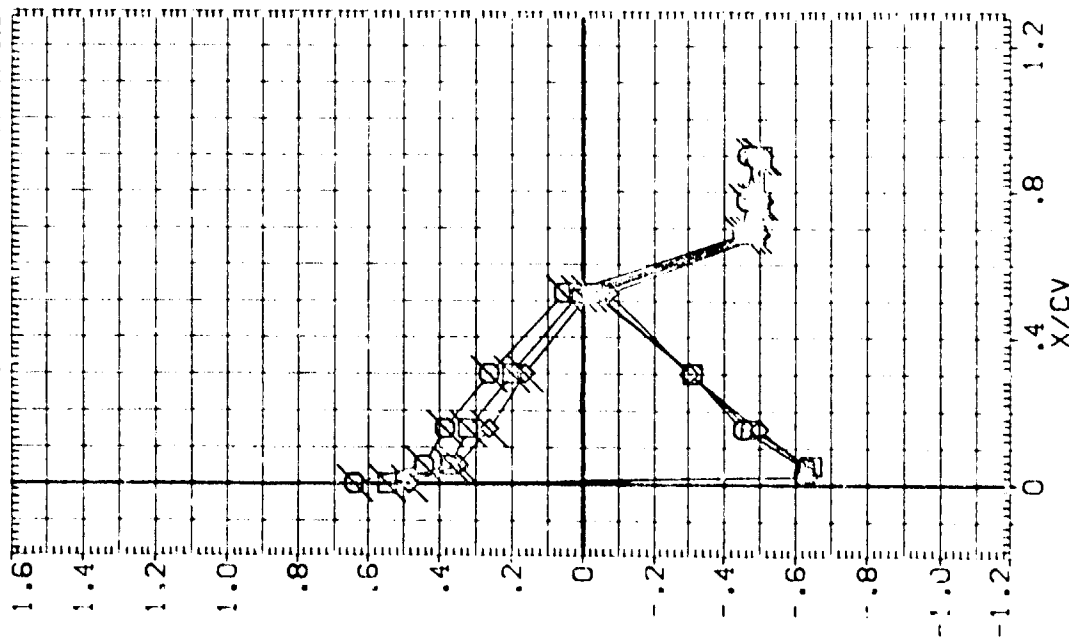
CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

PARAMETRIC VALUES  
 1.250 ELEVON .000  
 .000 SPOILER .000

MACH  
 RUDDER

SYMBOL ALPHA Z/BV BETA0  
 -8.220 .925 4.080  
 -4.200  
 -.760

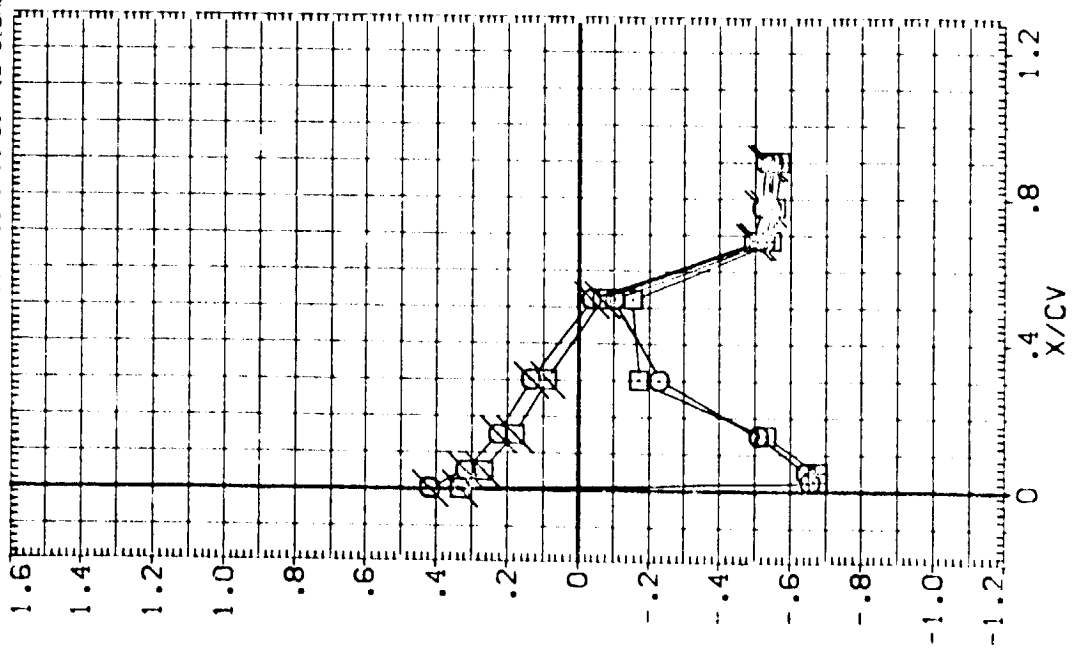
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R31V33) OPEN ARC 11-716 1A14 01+112+S12N25+AT10 LEFT VERTICAL  
 (R31R33) FLAGGED ARC 11-716 1A14 01+112+S12N25+AT10 RIGHT VERTICAL



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

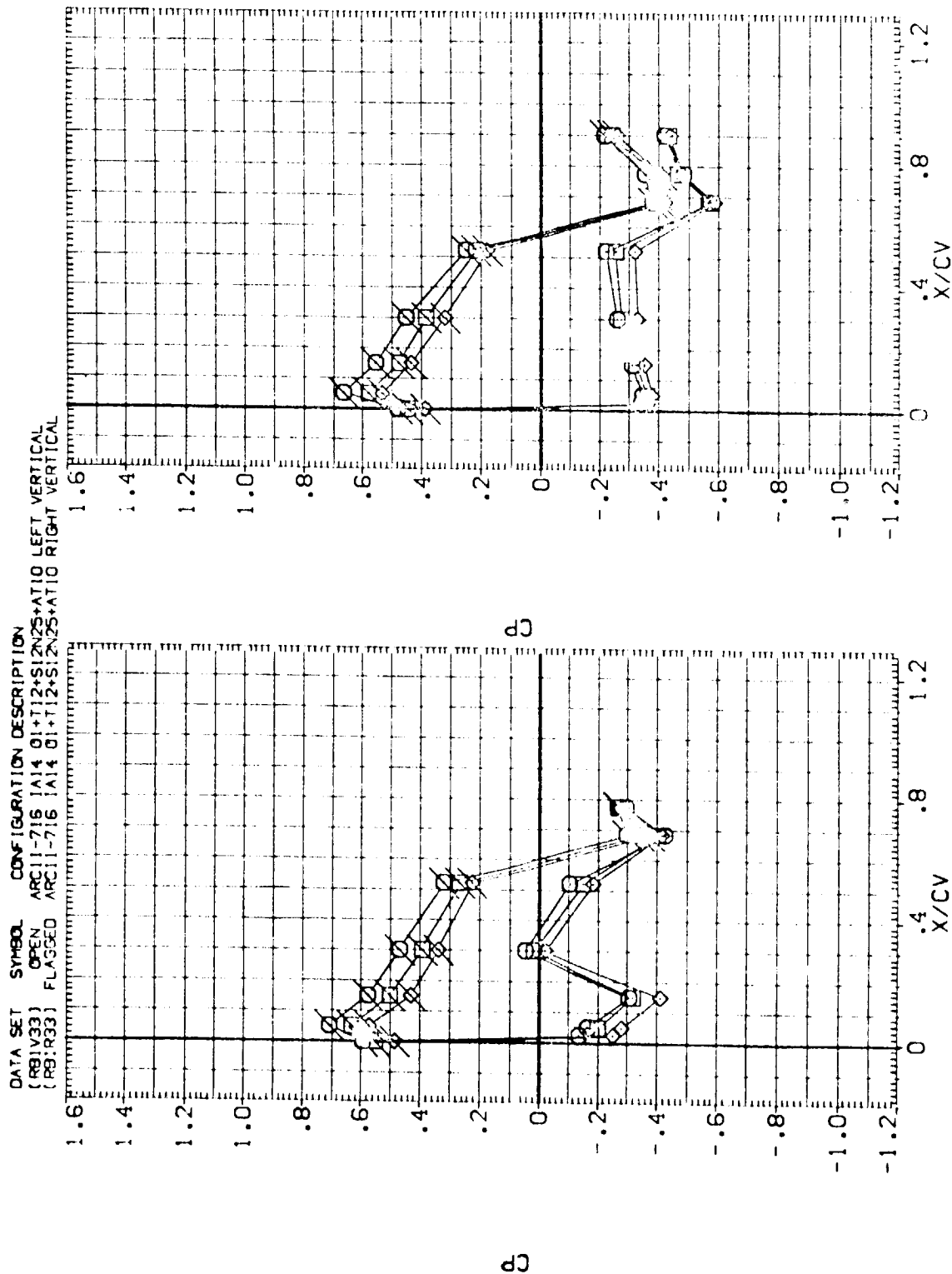
SYMBOL	ALPHA	Z/BV	BETA	MACH	PARAMETRIC VALUES
□	4.300	.925	4.080	RUDDER	1.250 ELEVON .000
□	7.910				.000 SPOBRK .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RB1V33) OPEN ARC11-716 1A14 01+T12-S12N25+AT10 LEFT VERTICAL  
 (RB1R33) FLAGGED ARC11-716 1A14 01+T12-S12N25+AT10 RIGHT VERTICAL



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

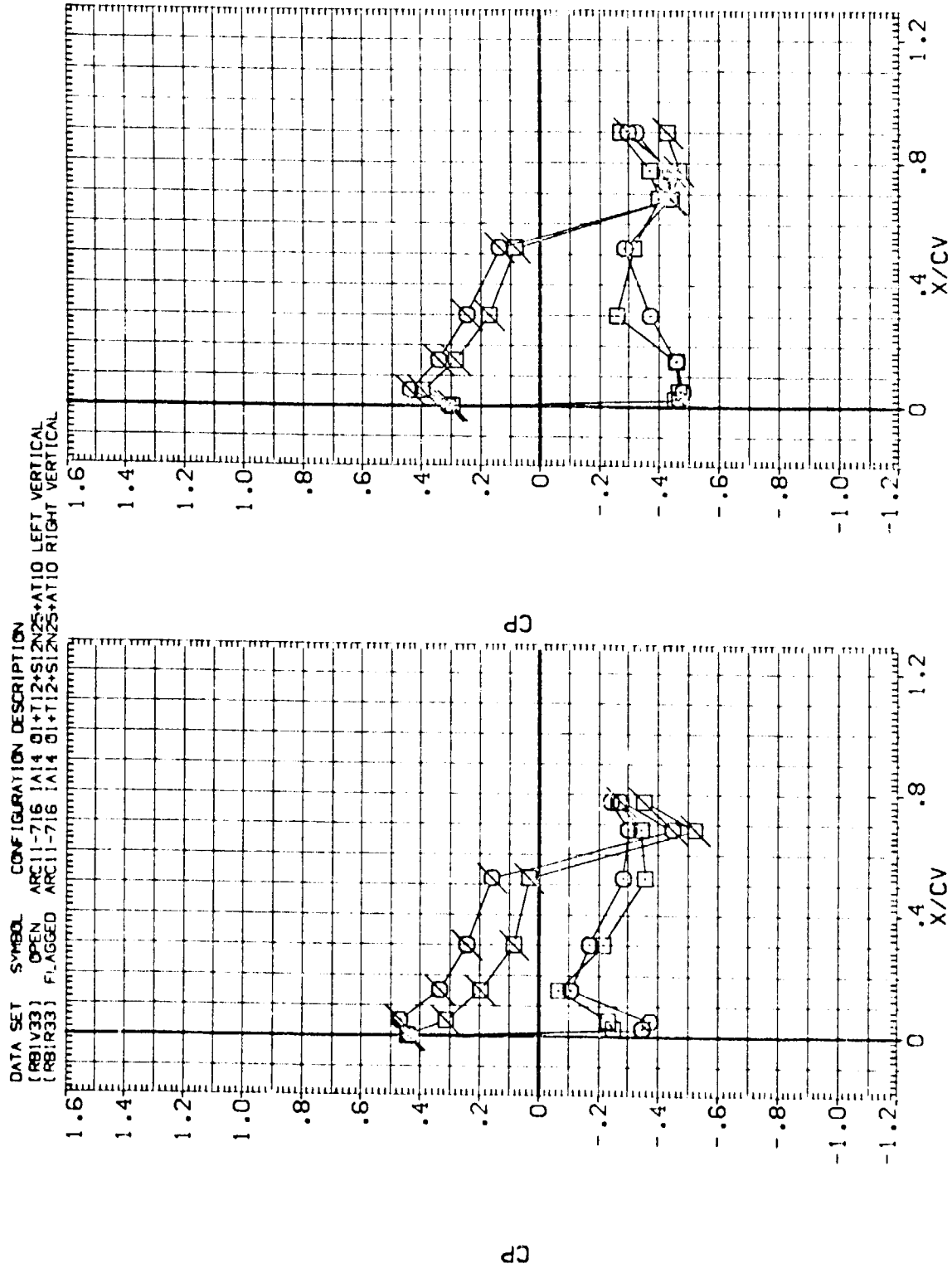
SYMBOL	ALPHA	Z/BV	BETA	MACH	PARAMETRIC VALUES
○	-8.220	.158	8.120	1.250	ELEVON .000
□	-4.200	.316		.000	SPOBRK .000
◇	-.760				



SYMBOL  
○  
□

ALPHA 0 4.300 7.910  
Z/BV .158 .316  
BETA 0 8.120

MACH 1.250  
RUDDER .000  
PARAMETRIC VALUES  
ELEVON .000  
SPOBRK .000

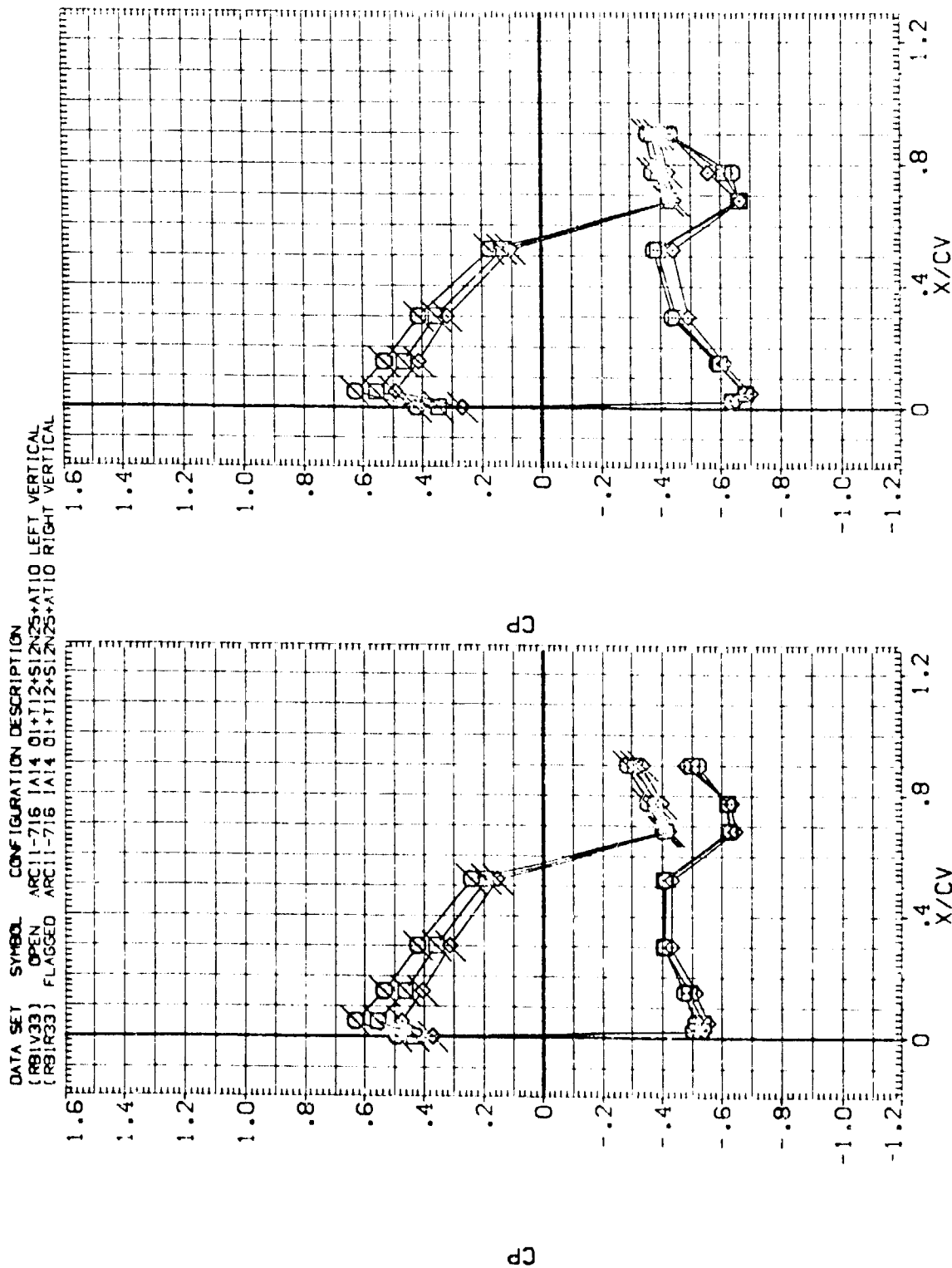


CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES



PARAMETRIC VALUES  
MACH 1.250 ELEVON .000  
RUDDER .000

SYMBOL ALPHA0 Z/BV BETA0  
-8.220 .600 8.120  
-4.200 .840  
- .760



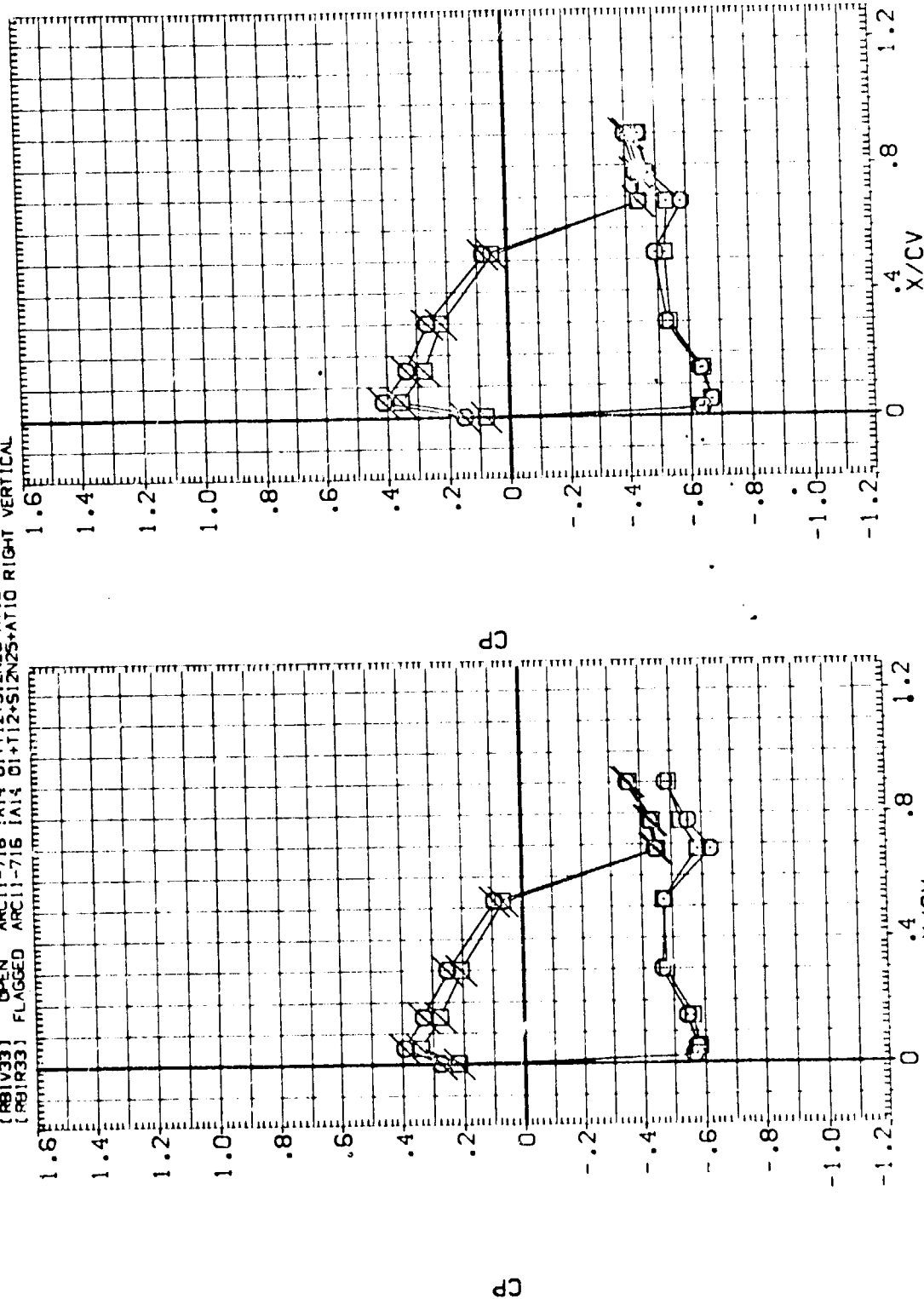
CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

PARAMETRIC VALUES  
 1.250 ELEVON .000  
 .000 SPDGRK .000

MACH  
 RUDDER

SYMBOL ALPHA Z/BV BETA  
 4.300 .600 9.120  
 7.910 .840

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RB1V33) OPEN ARC11-716 [A14 01+112+512N25+AT10 LEFT VERTICAL  
 (RB1R33) FLAGGED ARC11-716 [A14 01+112+512N25+AT10 RIGHT VERTICAL



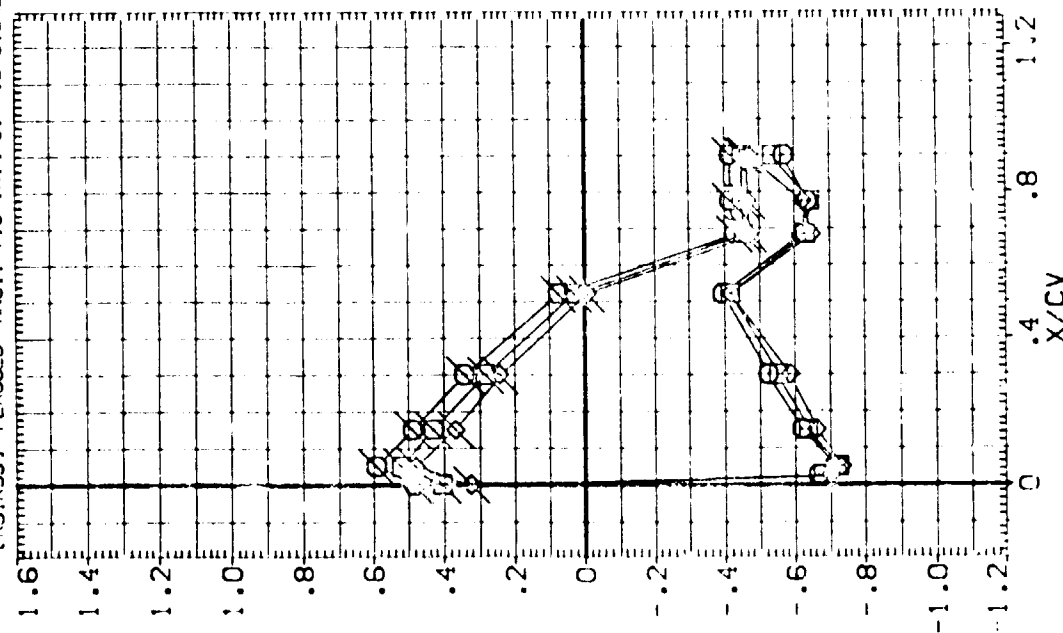
CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

PARAMETRIC VALUES  
 1.250 ELEVON  
 .000 SPOILER  
 .000

MACH  
 RUDDER

SYMBOL ALPHA0 Z/BV BETA0  
 -8.70 .925 8.120  
 -4.200  
 -.760

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R81V33) OPEN ARC11-716 :A14 01+T12+S12N25+AT10 LEFT VERTICAL  
 (R81R33) FLAGGED ARC11-716 :A14 01+T12+S12N25+AT10 RIGHT VERTICAL



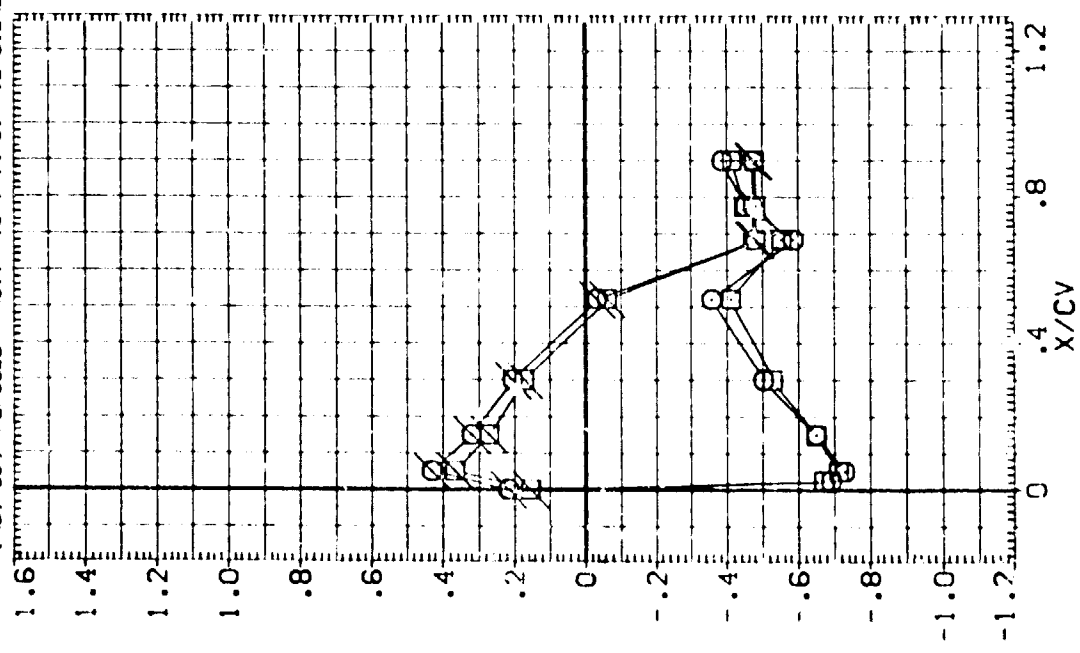
CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

SYMBOL ALPHA Z/BV BETA  
 4.300 .925 8.120  
 7.910

MACH  
 RUDDER

PARAMETRIC VALUES  
 1.250 ELEVON  
 .000 SPOILER  
 .000

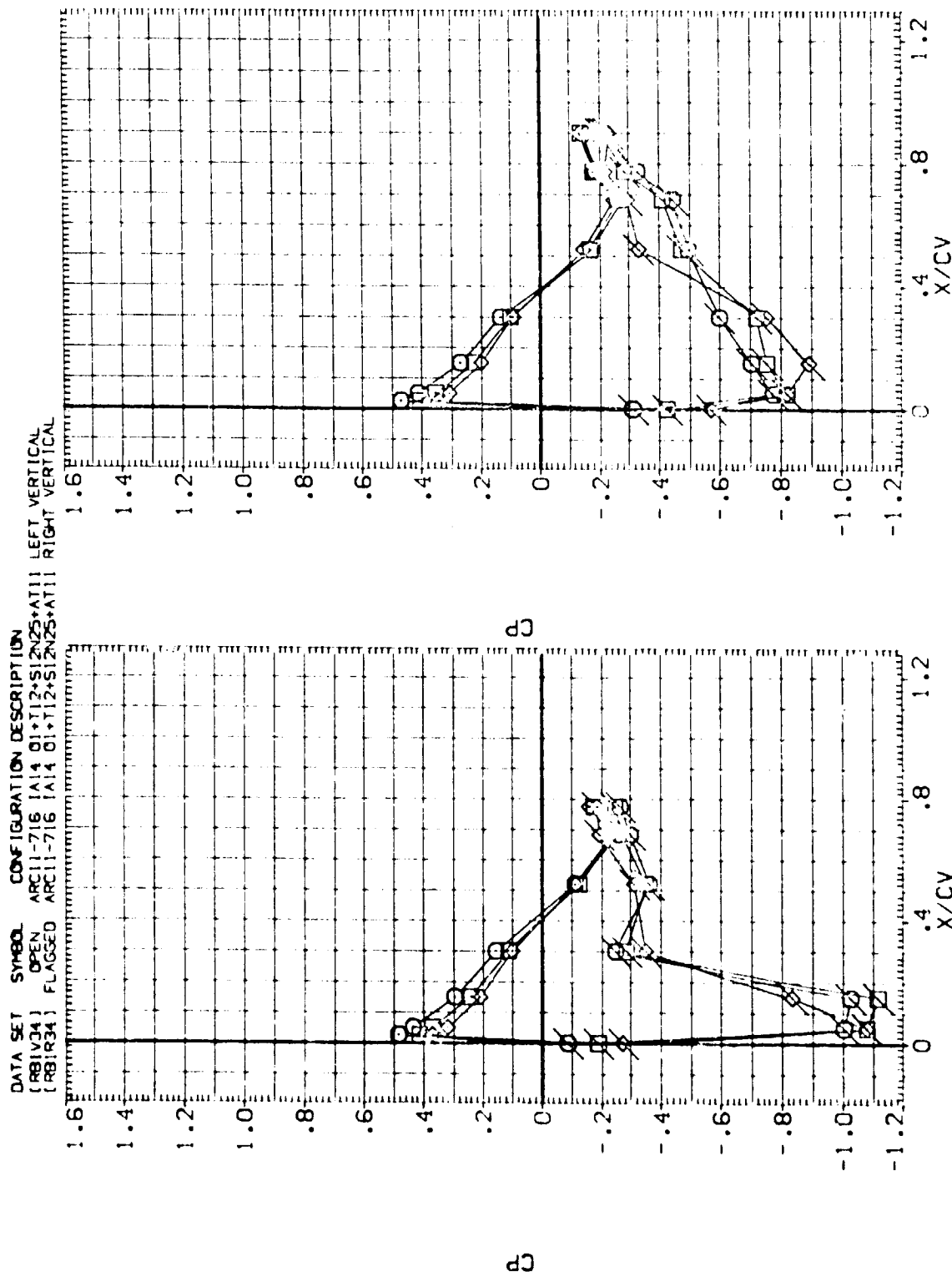
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 (RB1V33) OPEN ARC11-716 [A14 01+112+SI2N25+AT10 LEFT VERTICAL  
 (RB1R33) FLAGGED ARC11-716 [A14 01+112+SI2N25+AT10 RIGHT VERTICAL



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

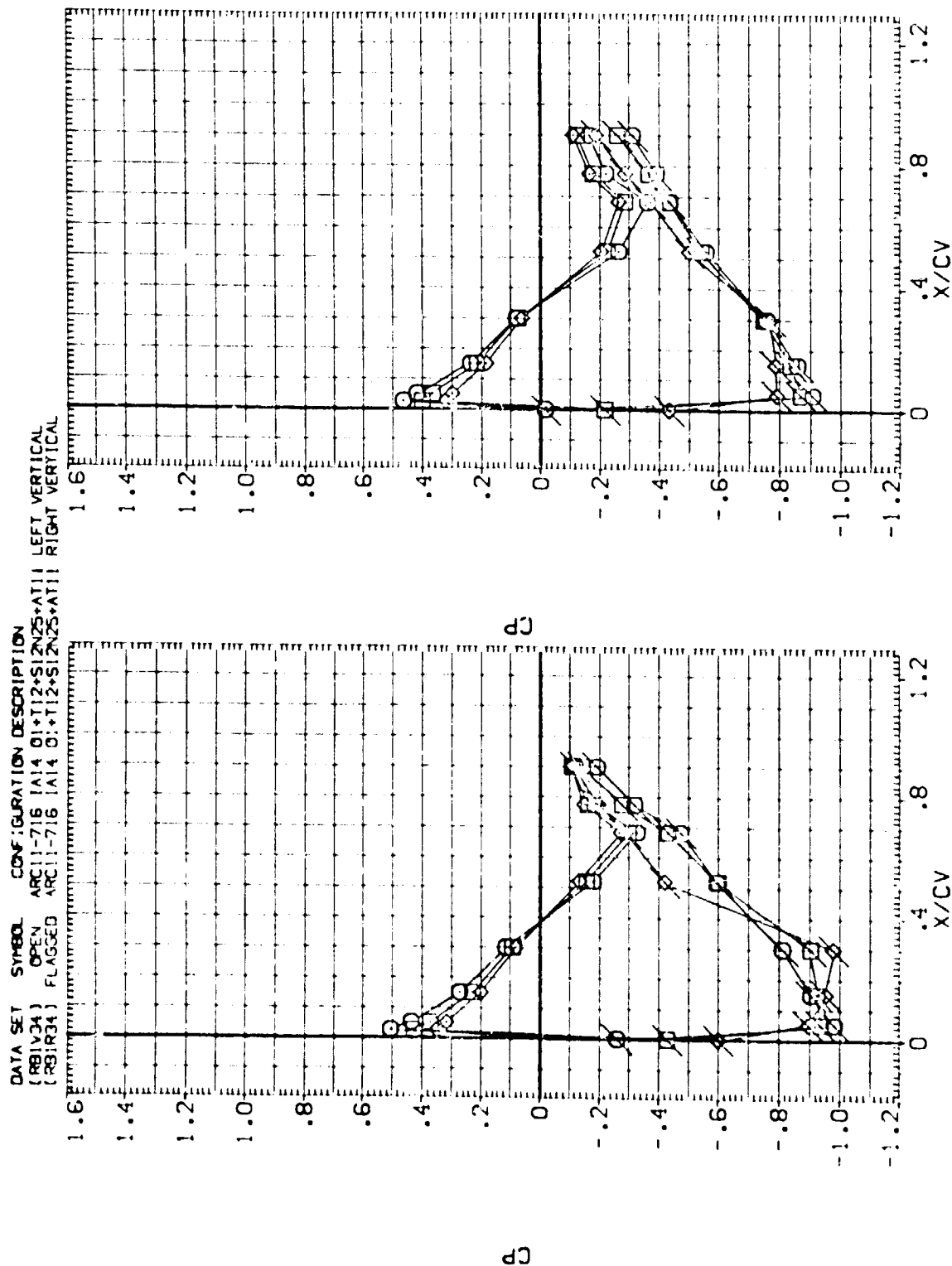
PARAMETRIC VALUES  
MACH .600 ELEVON .000  
RUDDER .000 SPOBRK .000

SYMBOL ALPHA<sub>0</sub> Z/BV BETA<sub>0</sub>  
○ -8.010 .156 -7.980  
□ -3.10 .316  
◇ 7.690



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

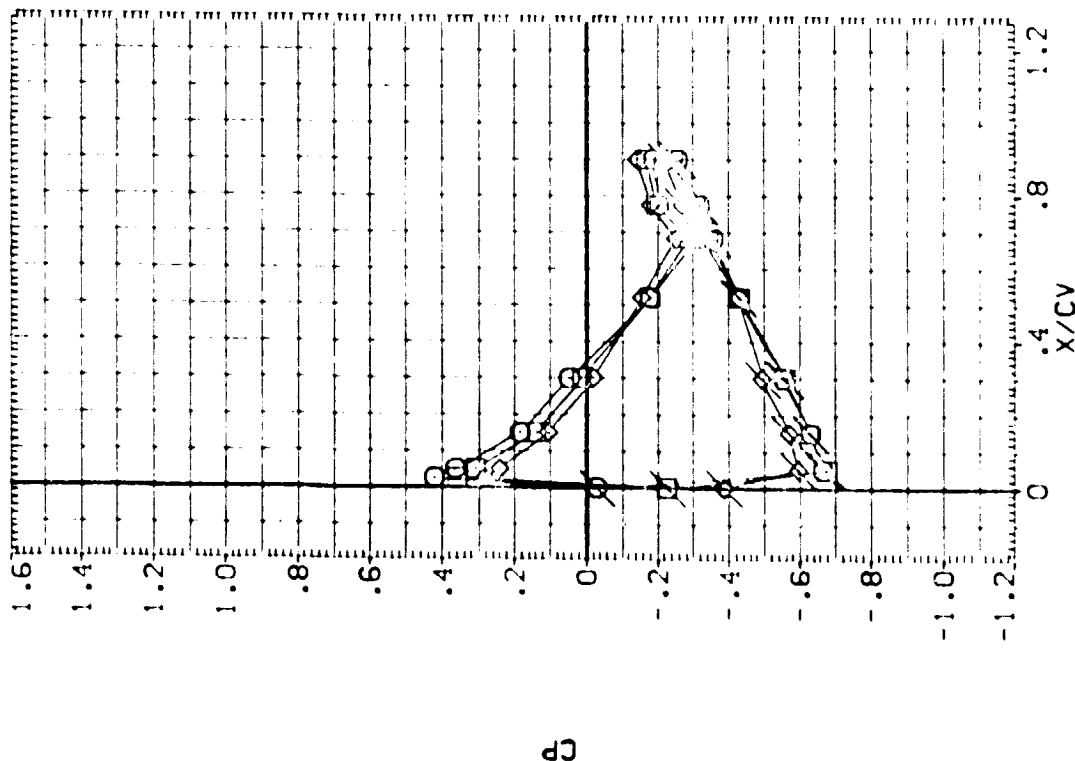
SYMBOL	ALPHA 3	Z/BV	BETA 0	MACH	PARAMETRIC VALUES
○	-3.013	.600	-7.980	.000	.600 ELEVON
□	-3.313	.840		.000	.000 SPD3RK
◇	7.890				



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

SYMBOL	ALPHA	Z	BY	BETA	MACH	PARAMETRIC VALUES
○	-8.010		.925	-7.980	RUDDER	.600 ELEVON .000
□	-3.310					.000 SP039K .000
◇	7.830					

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RB1V34) OPEN ARC11-716 1A14 01+112+512N25+AT11 LEFT VERTICAL  
 (RB1R34) FLAGGED ARC11-716 1A14 01+112+512N25+AT11 RIGHT VERTICAL



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

PARAMETRIC VALUES  
MACH .600 ELEV/CM .000  
RUDDER .000 SPEED/CM .000

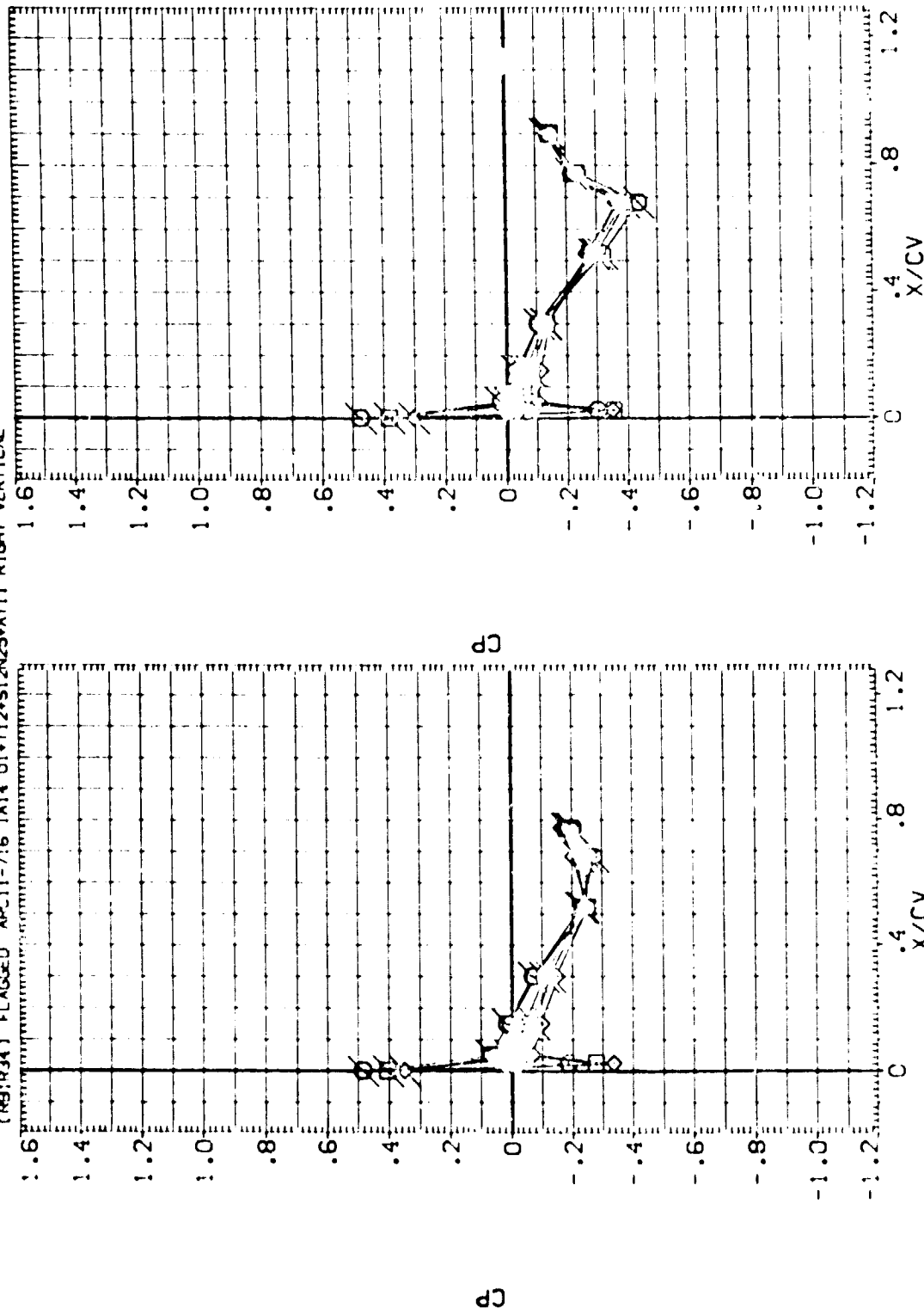
ALPHA  
-8.010  
-3.310  
7.890

BETA  
.158  
.316

Z/BV  
.158  
.316

SYMBOL  
○ □ ◇

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
(RB1V34) OPEN ARC11-716 [A14 0] T12-S12N25+AT11 LEFT VERTICAL  
(RB1R34) FLAGGED ARC11-716 [A14 0] T12-S12N25+AT11 RIGHT VERTICAL



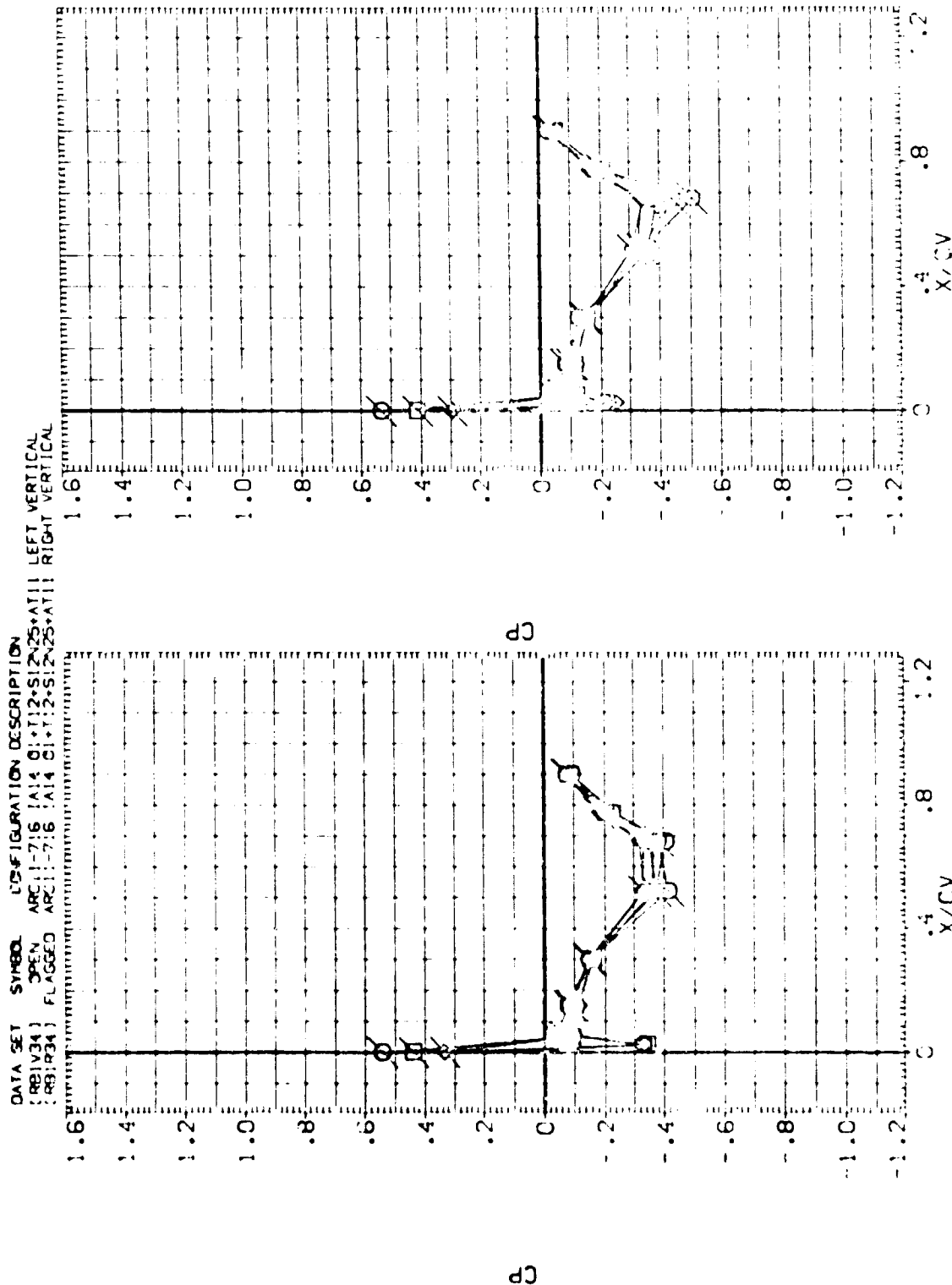
CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES



SYMBOL ALPHA0 Z/BV BETA0  
 -8.010 .600 .030  
 -.310 .840  
 7.850

MACH  
 RUDDER

PARAMETRIC VALUES  
 .600 ELEVON  
 .030 SPOILER



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

SYMBOL  
○ □ ◇

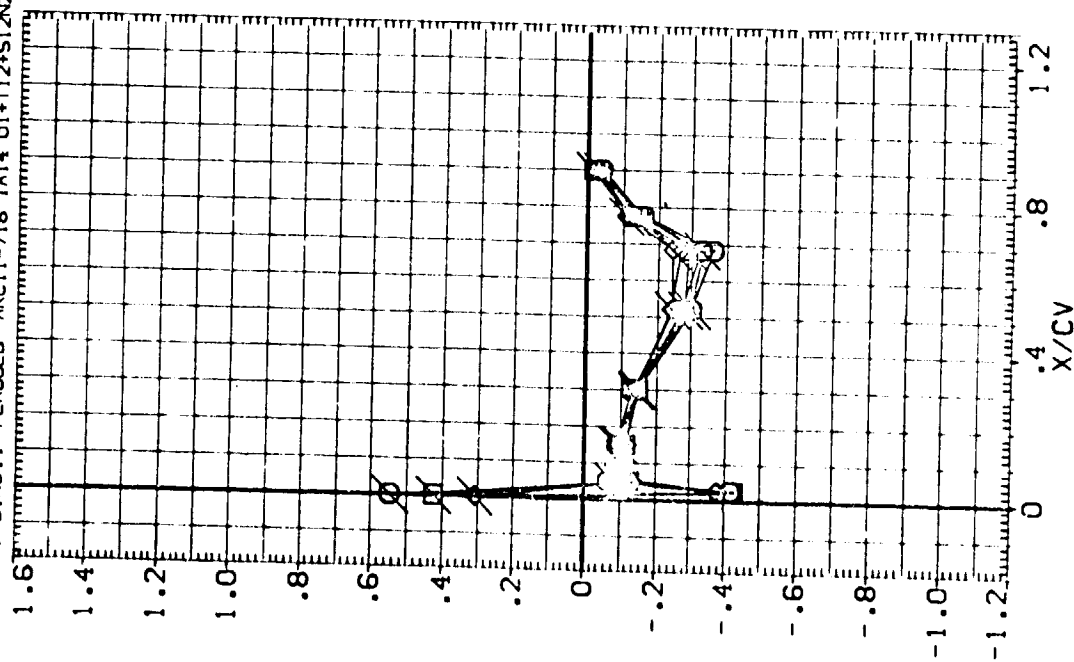
ALPHA  
-8.010  
-3.310  
7.690

Z/BV .925  
BETA0 .030

MACH  
RUDDER

PARAMETRIC VALUES  
.600 ELEVON  
.000 SPDBRK  
.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
(R8) (V34) OPEN ARC11-716 (A14 01+112+512N25+AT11 LEFT VERTICAL  
(R8) (R34) FLAGGED ARC11-716 (A14 01+112+512N25+AT11 RIGHT VERTICAL

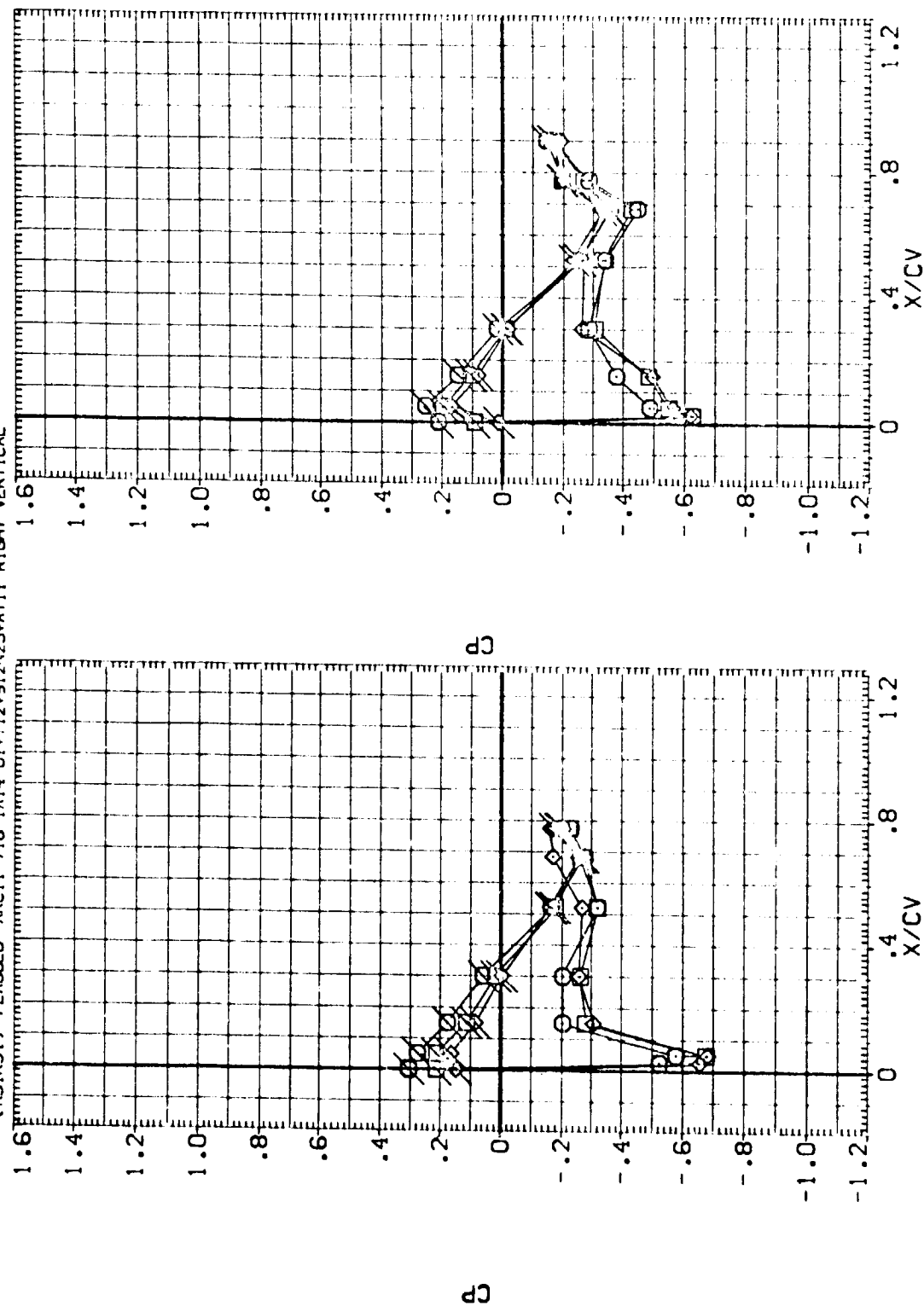


CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

PARAMETRIC VALUES  
 MACH .600 ELEVON .000  
 RUDDER .000 SPEEDBRK .000

SYMBOL ALPHA-AD Z/BV BETA-AD  
 -8.010 .158 4.090  
 -310 .316  
 7.890

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R81V34) OPEN ARC11-716 [A14 01+T12+S12N25+AT11] LEFT VERTICAL  
 (R81R34) FLAGGED ARC11-716 [A14 01+T12+S12N25+AT11] RIGHT VERTICAL

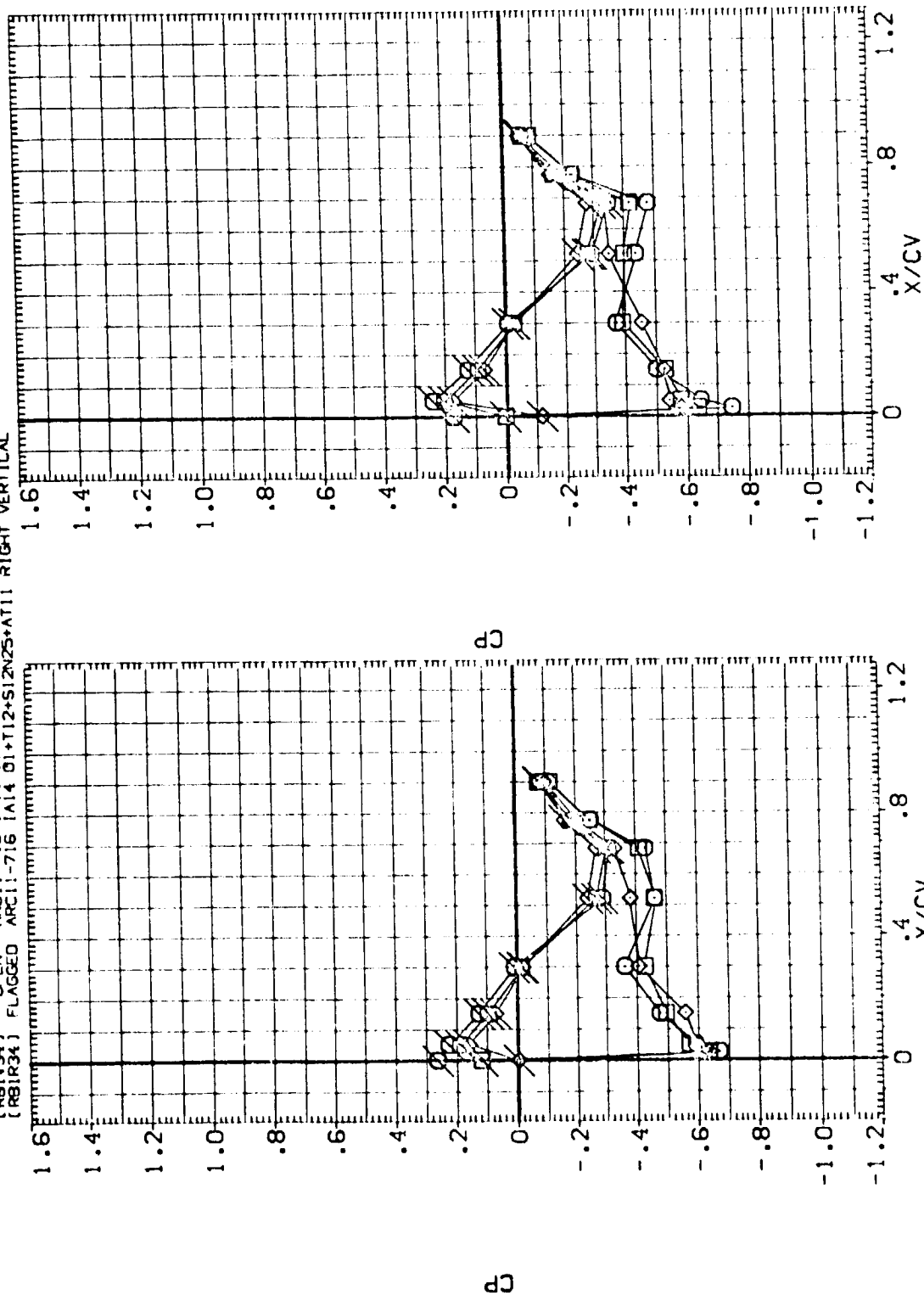


CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

PARAMETRIC VALUES  
 MACH .600 ELEVON .000  
 RUDDER .000 SPDRK .000

SYMBOL ALPHA Z/BV BETA  
 O -8.010 .600 4.050  
 □ -3.310 .840  
 ◇ 7.690

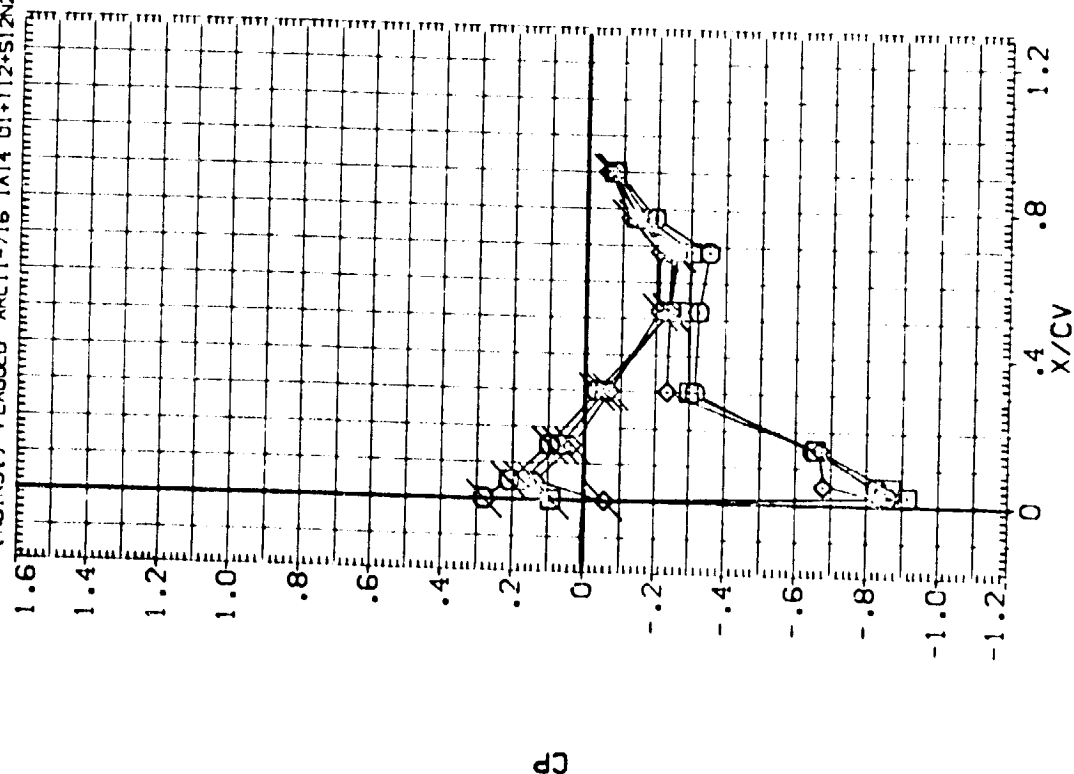
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RB1V34) OPEN ARC11-716 |A14 01+T12+S1Z25+AT11 LEFT VERTICAL  
 (RB1R34) FLAGGED ARC11-716 |A14 01+T12+S1Z25+AT11 RIGHT VERTICAL



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

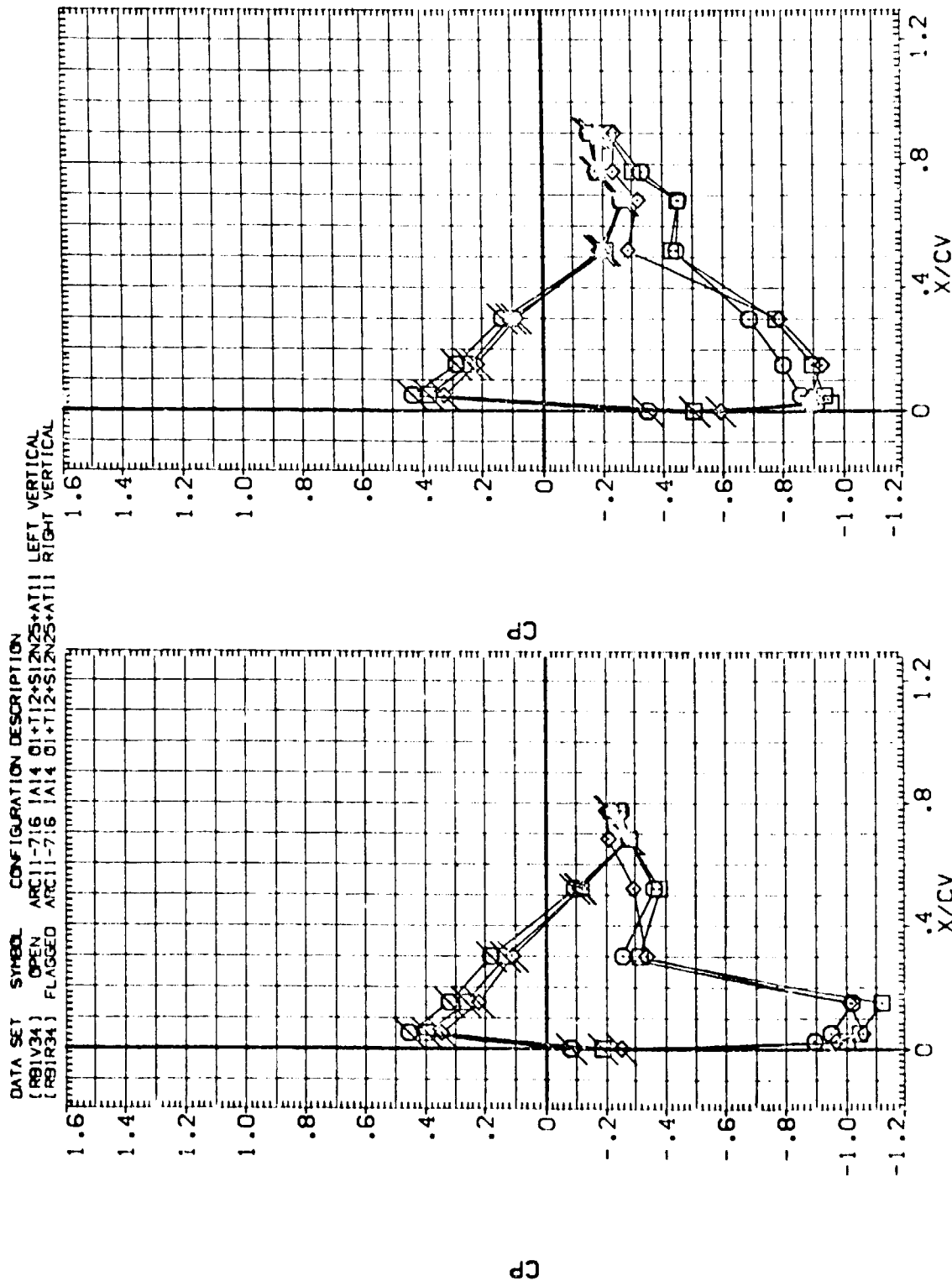
SYMBOL	ALPHA0	Z/BV	BETA0	MACH	PARAMETRIC VALUES
○	-8.010	.925	4.090	RUDDER	.600 ELEVON
□	-.310				.000 SFDBRK
◇	7.690				.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RB1V34)	OPEN	ARC11-716 [A14 01+112+512N25+AT11 LEFT VERTICAL
(RB1R34)	FLAGGED	ARC11-716 [A14 01+112+512N25+AT11 RIGHT VERTICAL



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

SYMBOL	ALPHA	Z/BV	BETA	MACH	PARAMETRIC VALUES
○	-8.010	.158	8.130	RUDDER	.600 ELEVON .000
□	-.310	.316			.000 SPOBRK .000
◇	7.690				

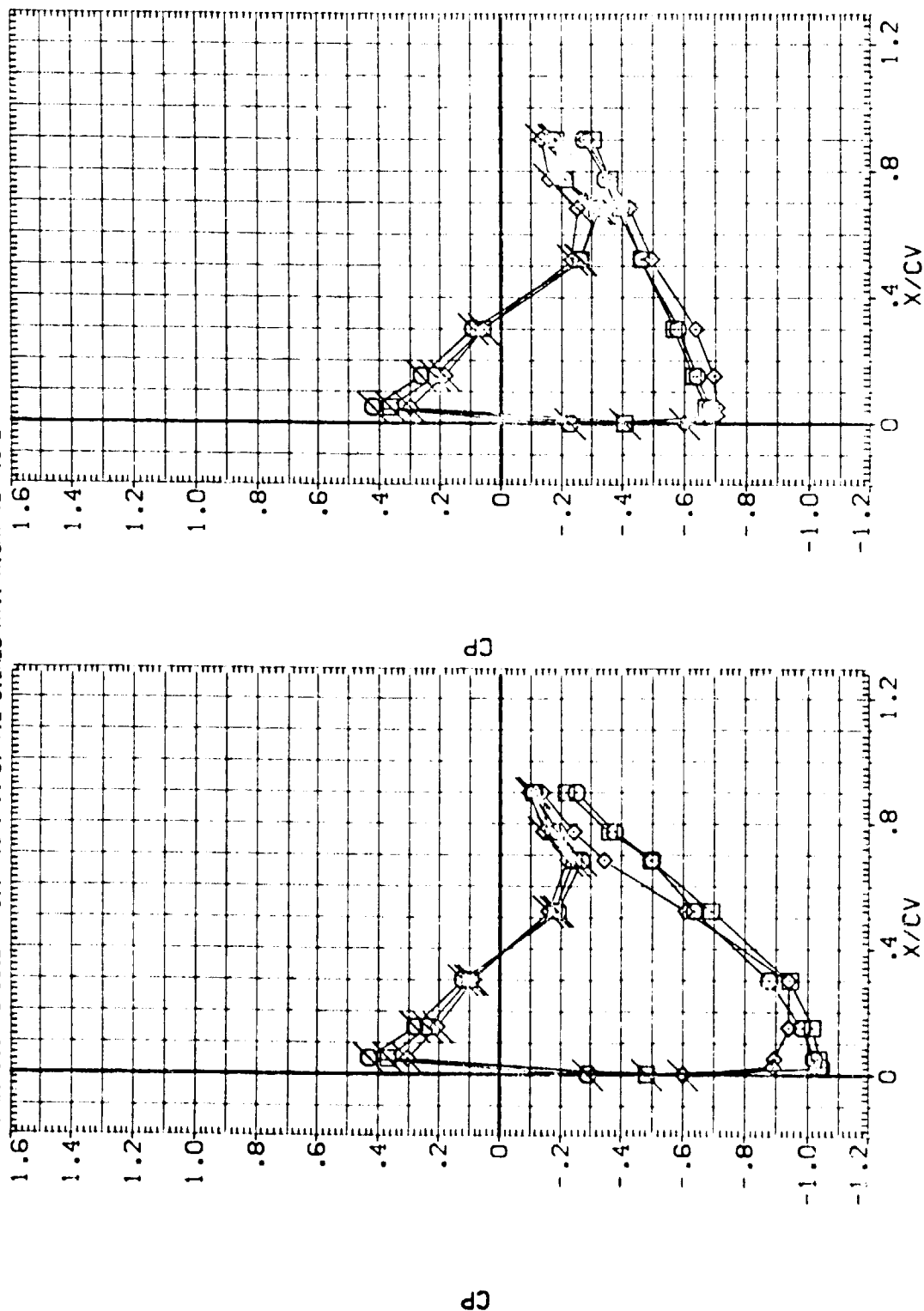


CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

PARAMETRIC VALUES  
MACH .600 ELEVON .000  
RUDDER .000 SPOILER .000

SYMBOL ALPHA Z/BV BETA  
-8.010 .600 8.130  
-310 .840  
7.850

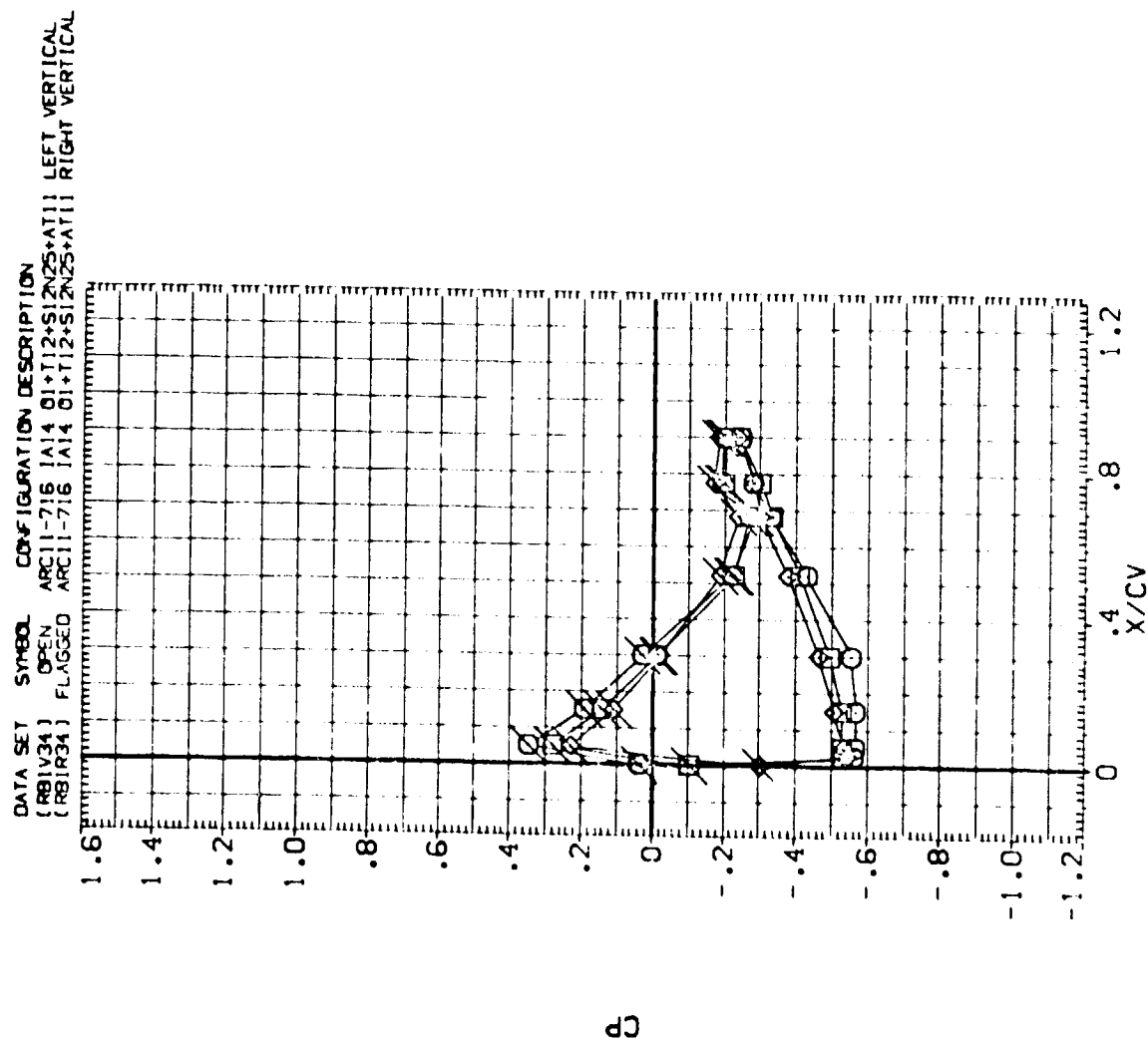
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
(R31V34) OPEN ARC11-716 [A14 01+T12-S12N25+AT1] LEFT VERTICAL  
(R31R34) FLAGGED ARC11-716 [A14 01+T12-S12N25+AT1] RIGHT VERTICAL



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

SYMBOL ALPHA0 Z/BV BETA0  
 -8.010 .925 8.130  
 -310  
 7.890

PARAMETRIC VALUES  
 MACH .600 ELEVON .000  
 RUDDER .000 SPOBRK .000



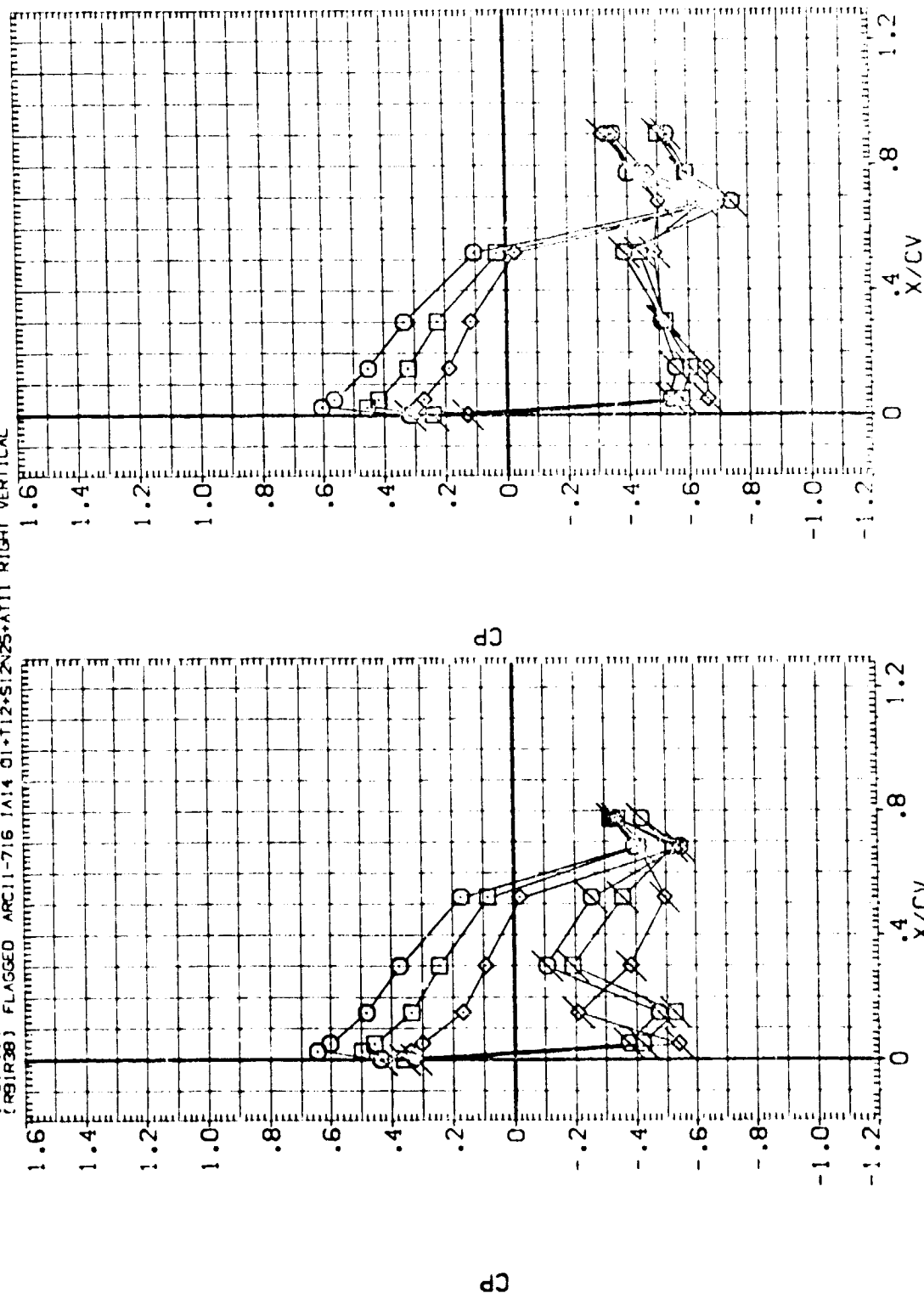
CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES



PARAMETRIC VALUES  
MACH 1.050 ELEVON .000  
RUDDER .000

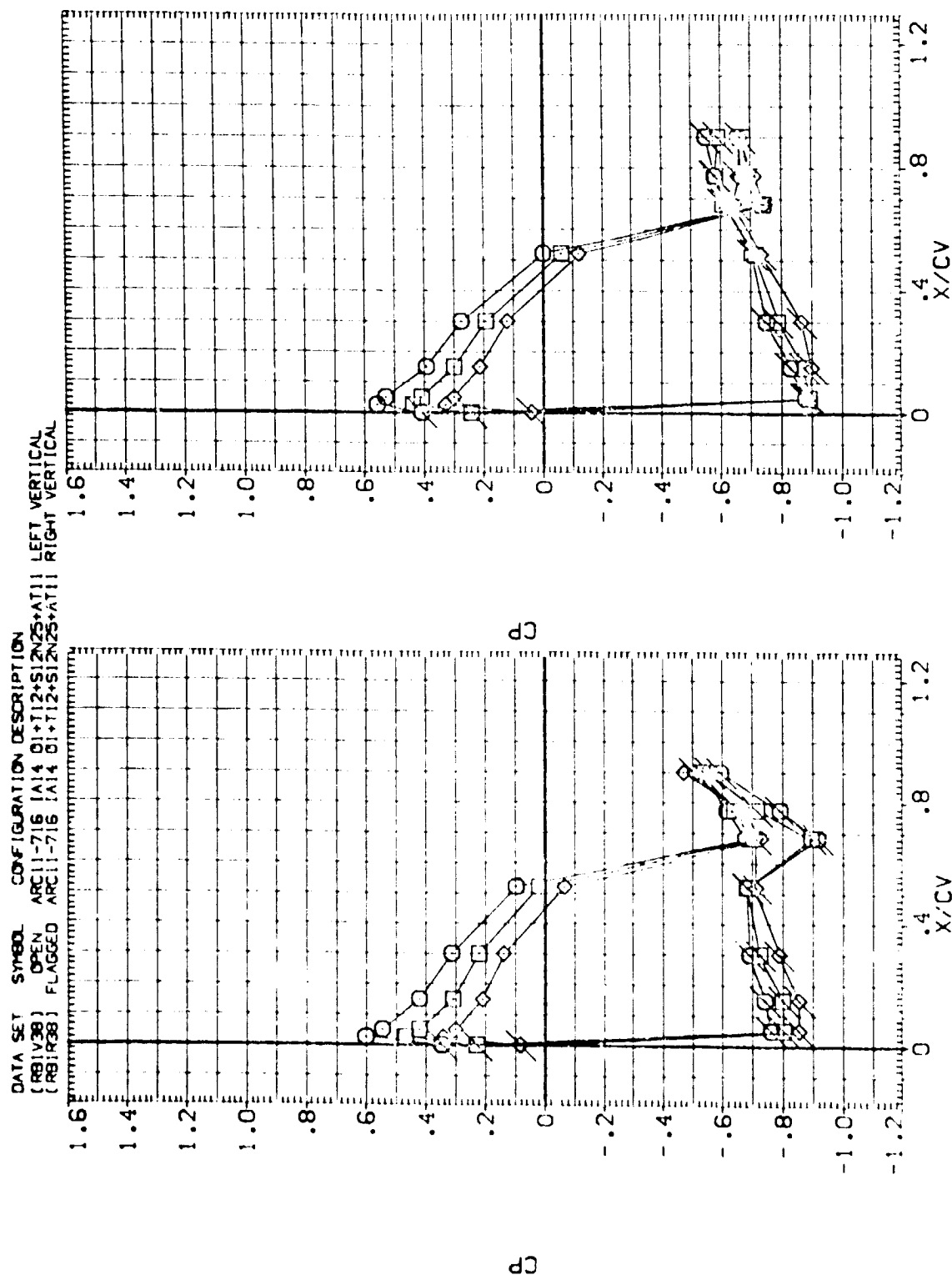
SYMBOL ALPHA Z/BV BETA  
○ -8.080 .158 -8.020  
□ -8.310 .316  
◇ 7.930

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
(RS1V38) OPEN ARC11-716 1A14 01-T12-S12ZS+AT11 LEFT VERTICAL  
(RS1R38) FLAGGED ARC11-716 1A14 01-T12-S12ZS+AT11 RIGHT VERTICAL



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

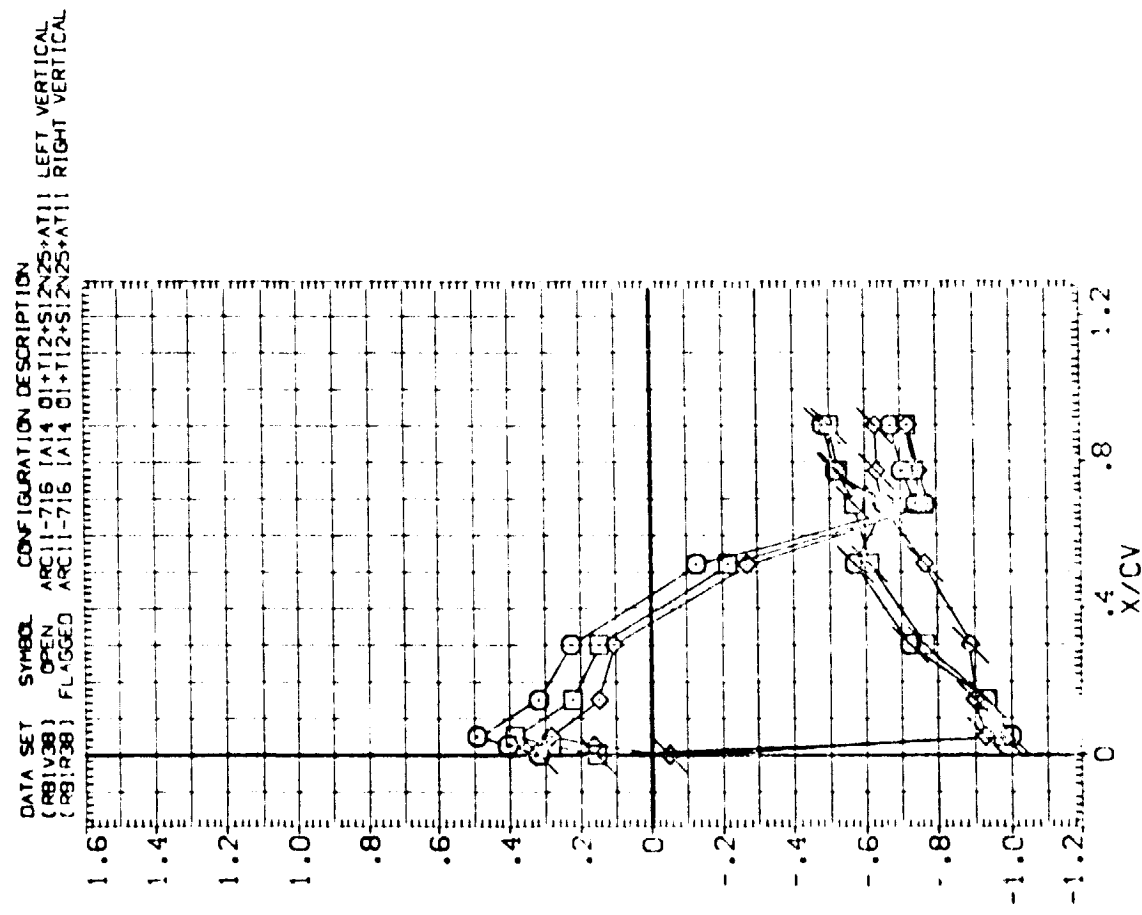
SYMBOL	ALPHA	Z/BV	BETA	MACH	PARAMETRIC VALUES
	-8.080	.600	-8.020	RUDDER	1.050
	-.310	.840			ELEVON
	7.930				SPDRK
					.000
					.000



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

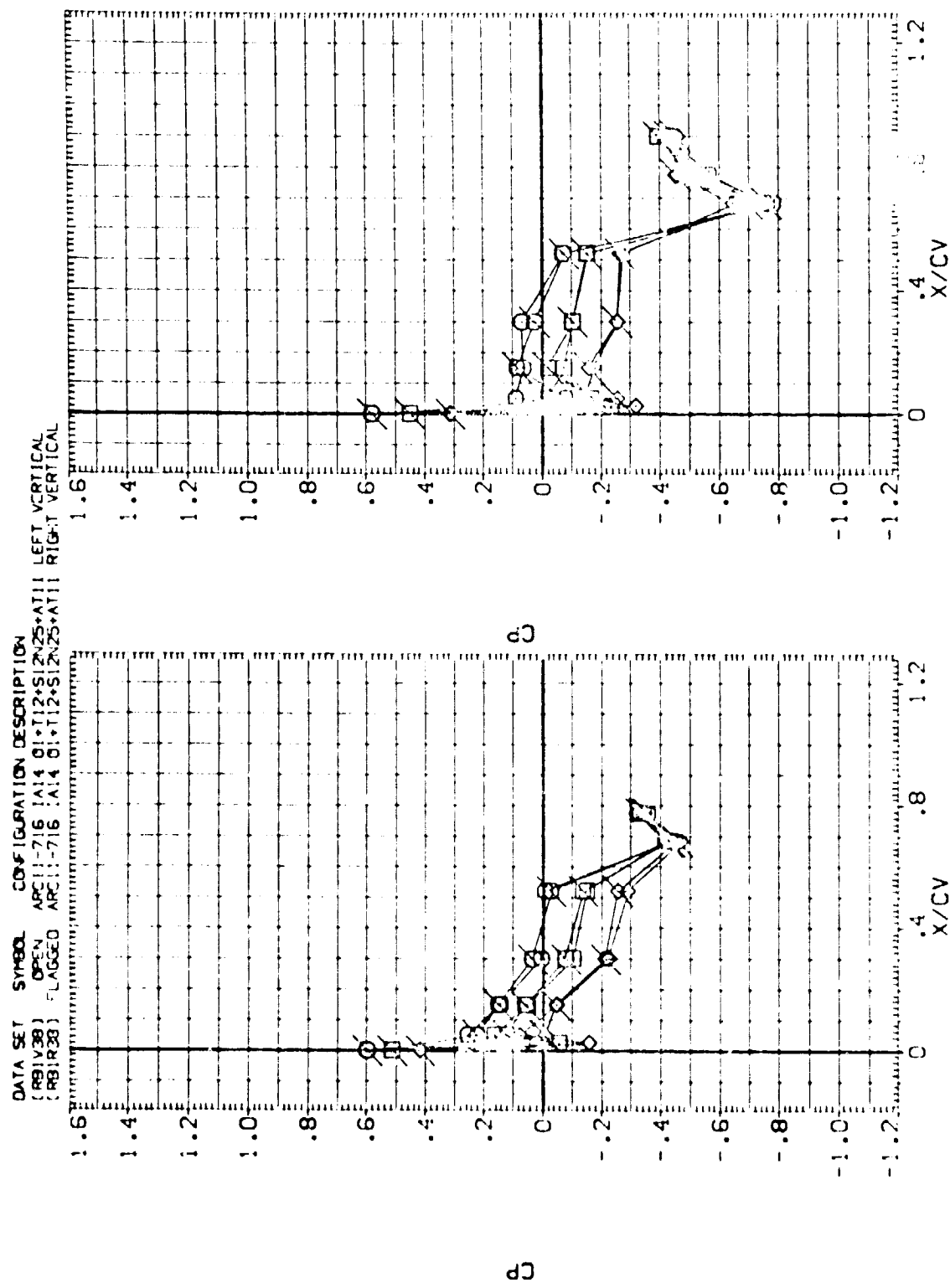
SYMBOL ALPHA0 Z/BV BETA0  
 ○ -8.080 .925 -8.020  
 □ -3.10  
 ◇ 7.930

PARAMETRIC VALUES  
 MACH 1.050 ELEVON .000  
 RUDDER .000 SPOBRK .000



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

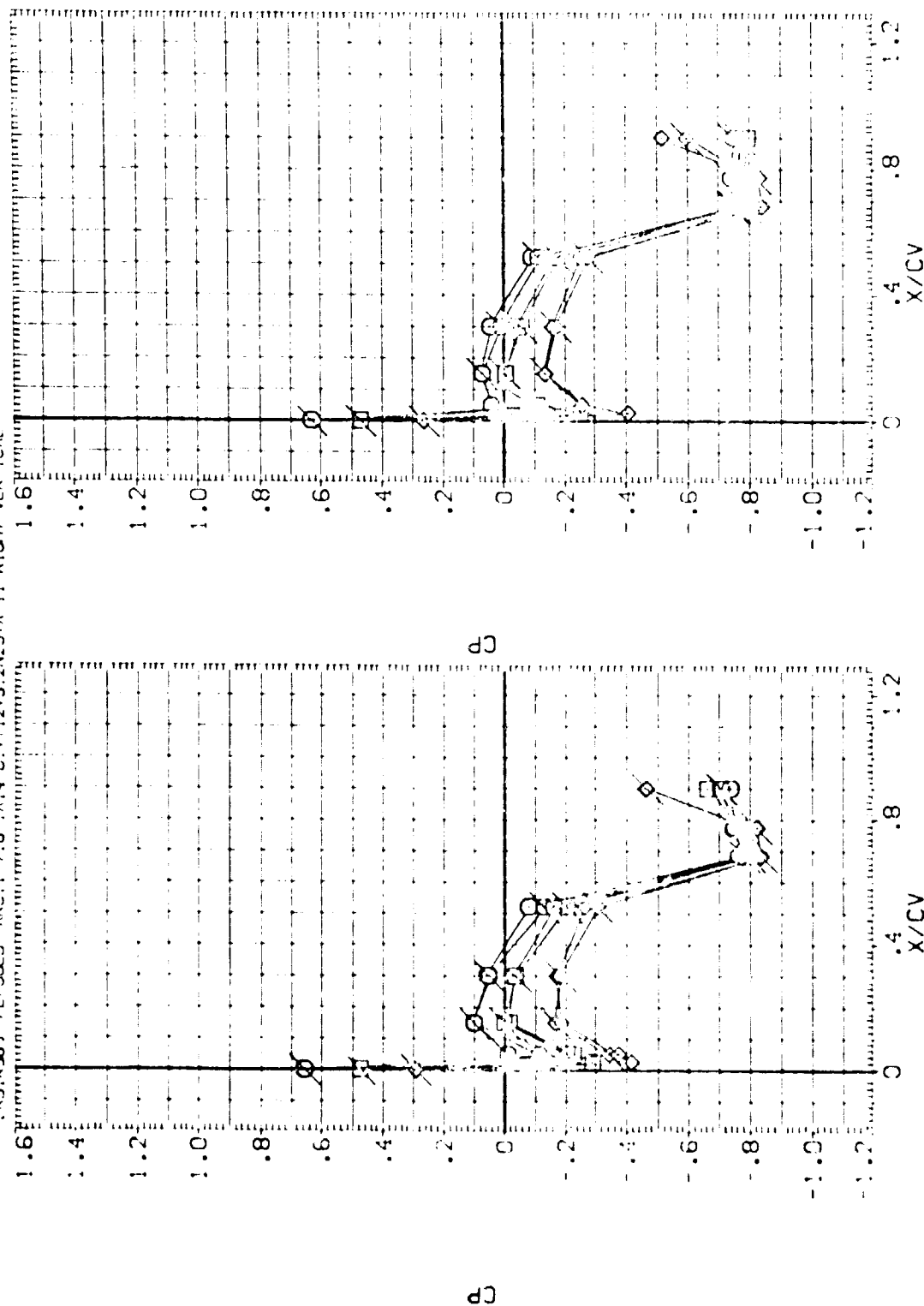
Symbl	ALPHA	Z/BV	BETA	MACH	PARAMETRIC VALUES
○	-8.080	.158	.030	RUDDER	1.050 ELEVON
◇	-7.930	.316			.000 SPOILER



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL MEASURES

SYMBOL	ALPHA	Z/BV	BETA	PARAMETRIC VALUES		
○	-8.080	.500	.030	MACH	1.050	ELEVON
□	-3.10	.840		RUDDER	.000	SPORON
◇	7.930					.000

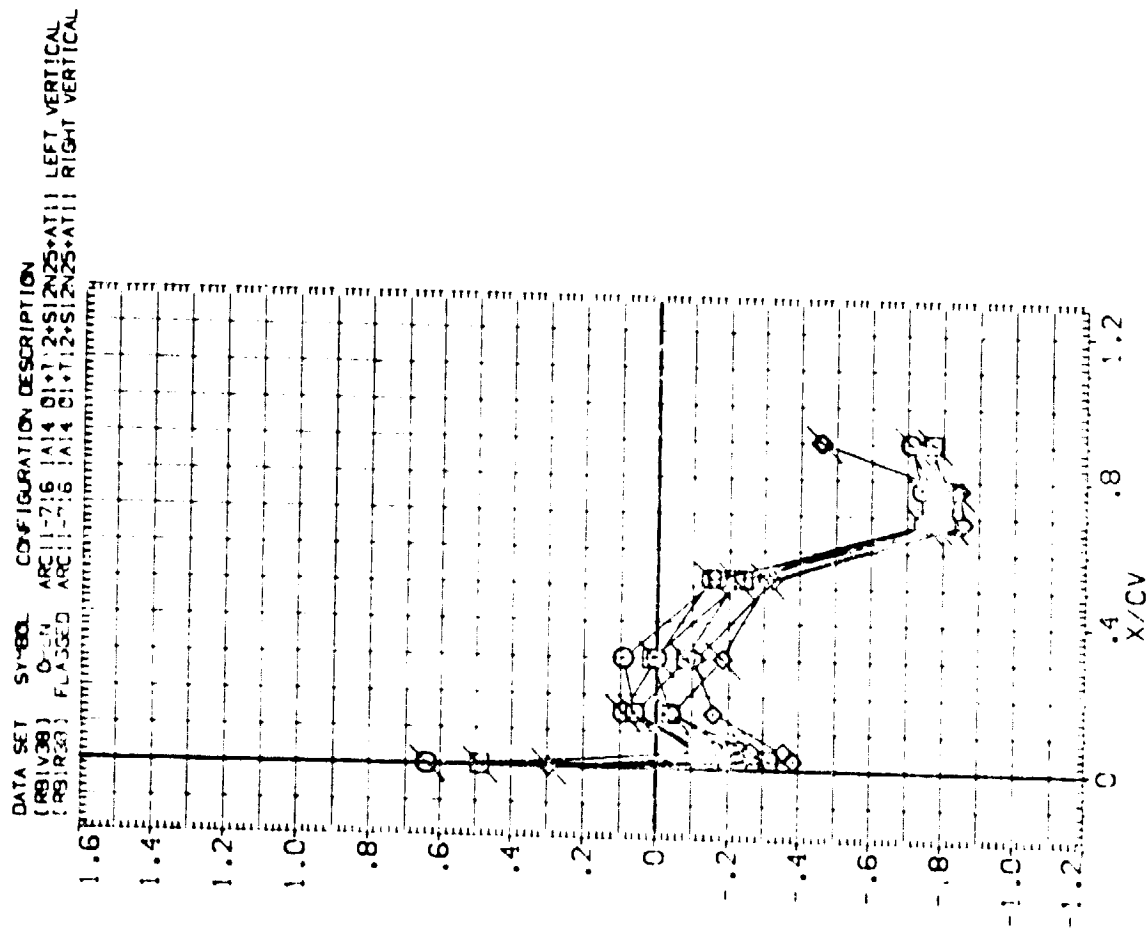
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R31V38) OPEN ARC11-716 [A14 01+Y12+S12N25+AT1] LEFT VERTICAL  
 (R31R38) FLAGGED ARC11-716 [A14 01+Y12+S12N25+AT1] RIGHT VERTICAL



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

SYMBOL ALPHA Z/BV BETA  
 O -8.080 .925 .030  
 □ -3.10  
 ◇ 7.930

PARAMETRIC VALUES  
 MACH 1.050 ELEVON .000  
 RUDDER .000 SPOILER .000



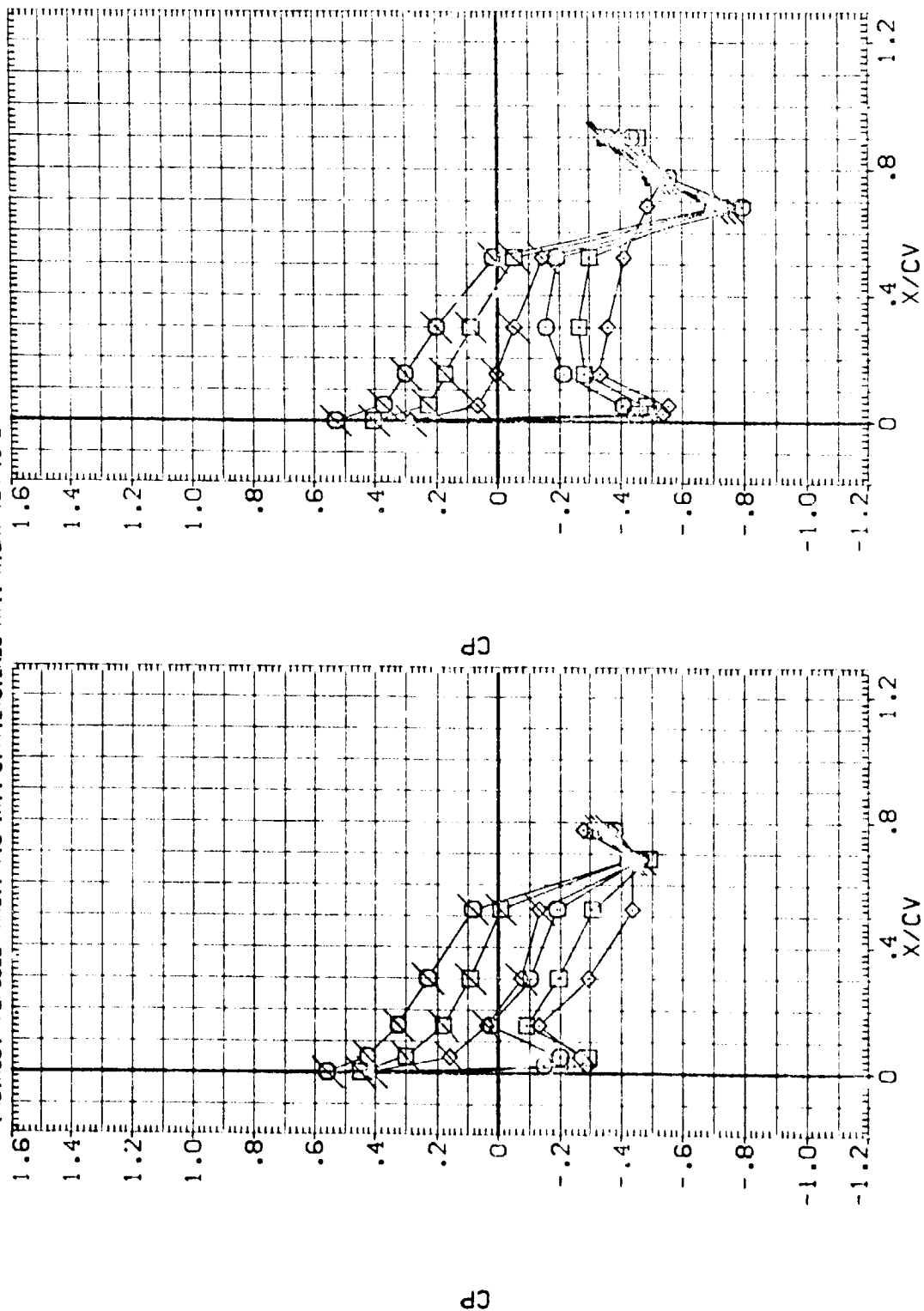
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CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

PARAMETRIC VALUES  
MACH 1.050 ELEVON .000  
RUDDER .000 SPDBRK .000

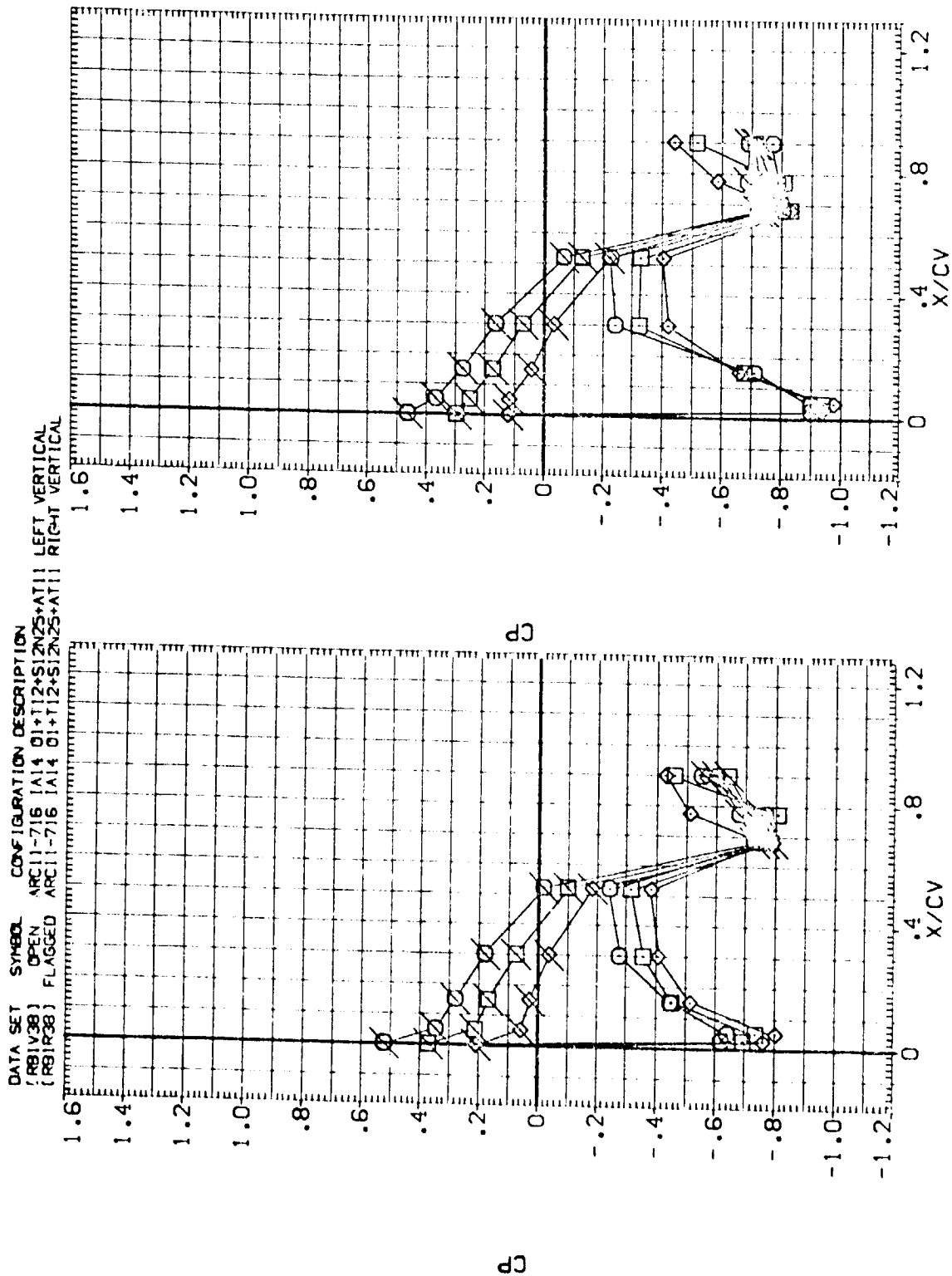
SYMBOL ALPHA0 Z/SV BETA0  
O -8.060 .158 4.120  
□ -3.10 .316  
◇ 7.930

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
(R91V38) OPEN ARC11-716 [A14 01+T12+S12N25+AT11] LEFT VERTICAL  
(R91R38) FLAGGED ARC11-716 [A14 01+T12+S12N25+AT11] RIGHT VERTICAL



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

SYMBOL	ALPHA	Z/BV	BETA	MACH	PARAMETRIC VALUES	
	-8.080	.600	4.120		1.050	ELEVON
	-3.310	.840		RUDDER	.000	SPDRK
	7.930				.000	



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES



PARAMETRIC VALUES  
 1.050 ELEVON  
 .000 SPOILER  
 .000

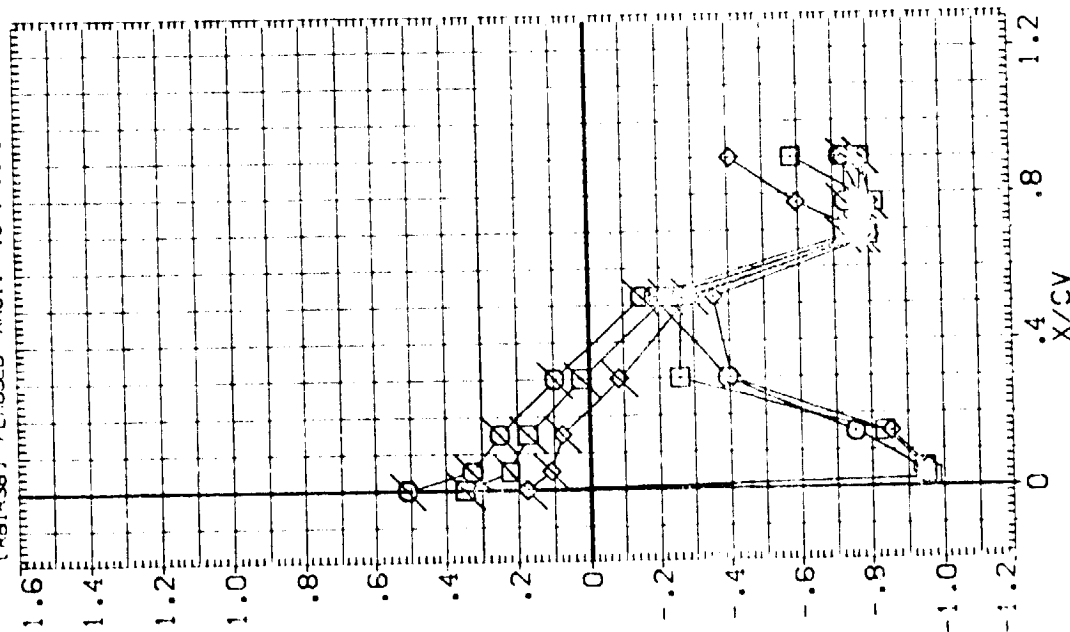
MACH  
 RUDDER

BETA0  
 4.120

Z/BV  
 .925

SYMBOL ALPHA0  
 -8.080  
 -3.310  
 7.930

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (081V38) OPEN ARC11-716 1A14 01+112+S12N25+AT11 LEFT VERTICAL  
 (281R38) FLAGGED ARC11-716 1A14 01+112+S12N25+AT11 RIGHT VERTICAL



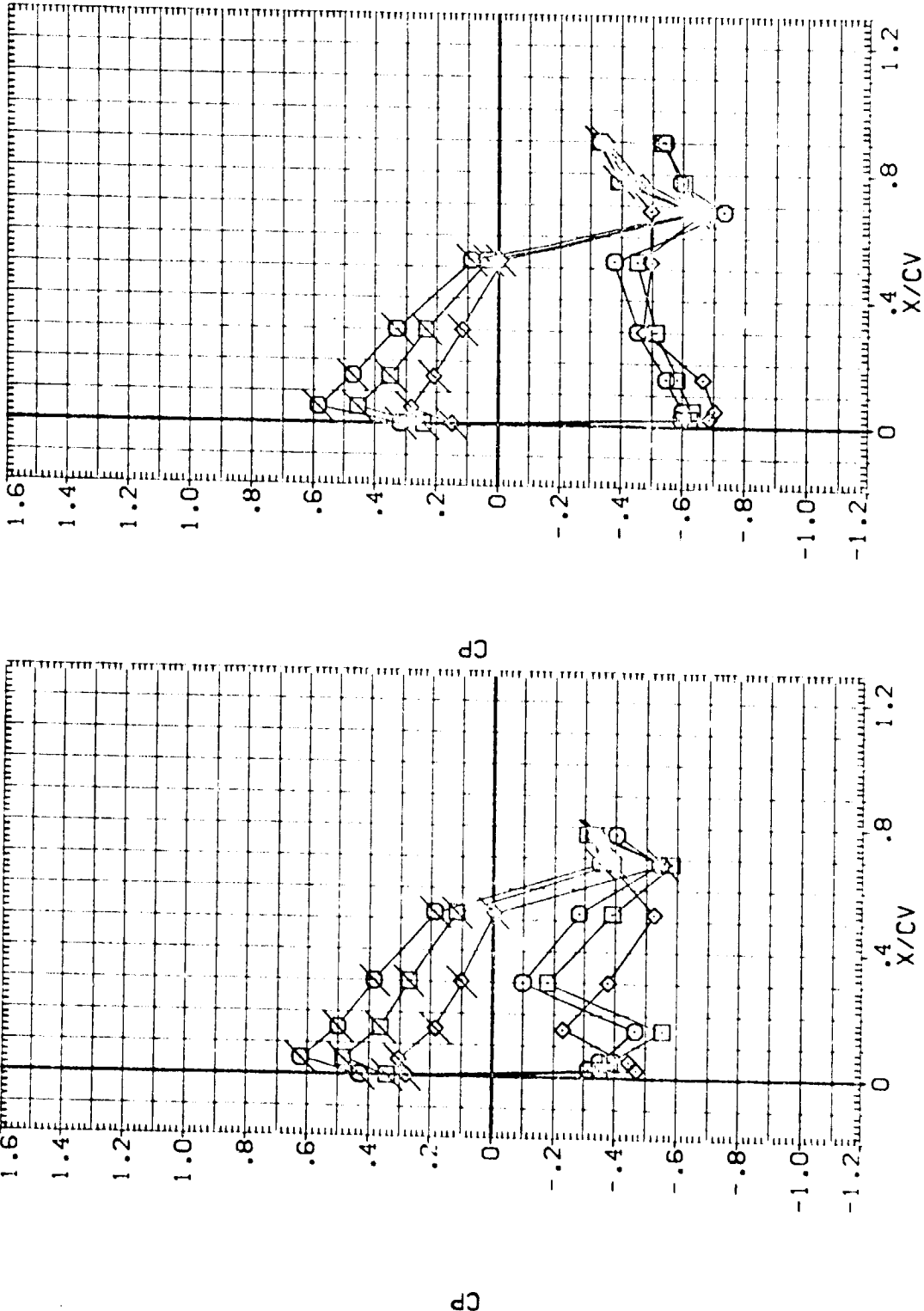
CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES  
 PAGE 424



PARAMETRIC VALUES  
 MACH 1.050 ELEVON .000  
 FLUTTER .000 SPOBRK .000

SYMBOL ALPHA Z/BV BETA  
 -8.080 .158 8.160  
 -3.10 .316  
 7.930

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RB1V38) OPEN ARC11-716 [A14 0]T12+S12N25+AT11 LEFT VERTICAL  
 (RB1R38) FLAGGED ARC11-716 [A14 0]T12+S12N25+AT11 RIGHT VERTICAL



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

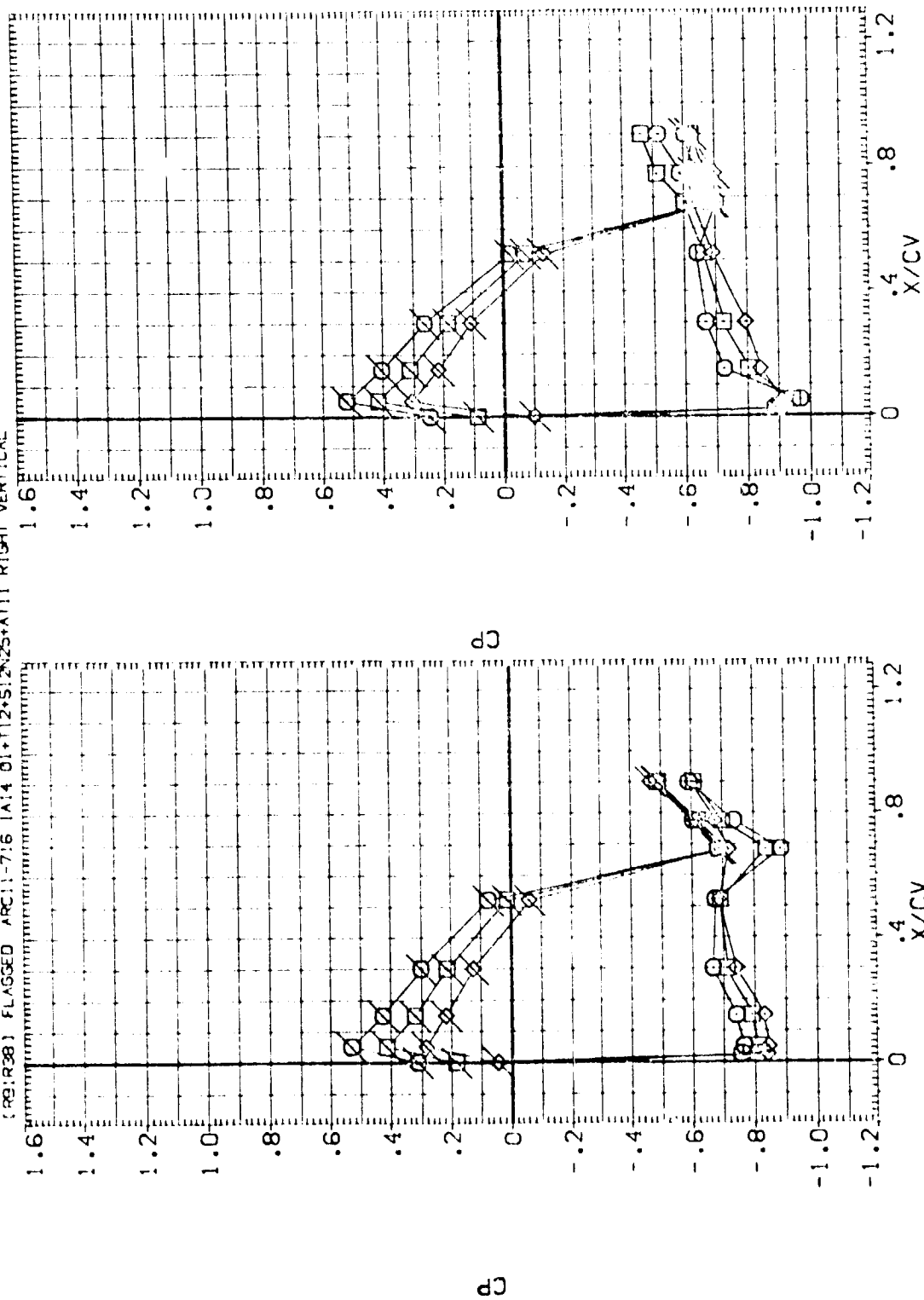
PARAMETRIC VALUES  
 MACH 1.050 ELEVON .000  
 RUDDER .000

ALPHA 8.080  
 -3.10  
 7.930

BETA 8.160  
 .600  
 .840

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(DBIV38) OPEN ARC11-716 [A14 01+T12+S12N25+AT11] LEFT VERTICAL  
 (DBIV38) FLAGGED ARC11-716 [A14 01+T12+S12N25+AT11] RIGHT VERTICAL

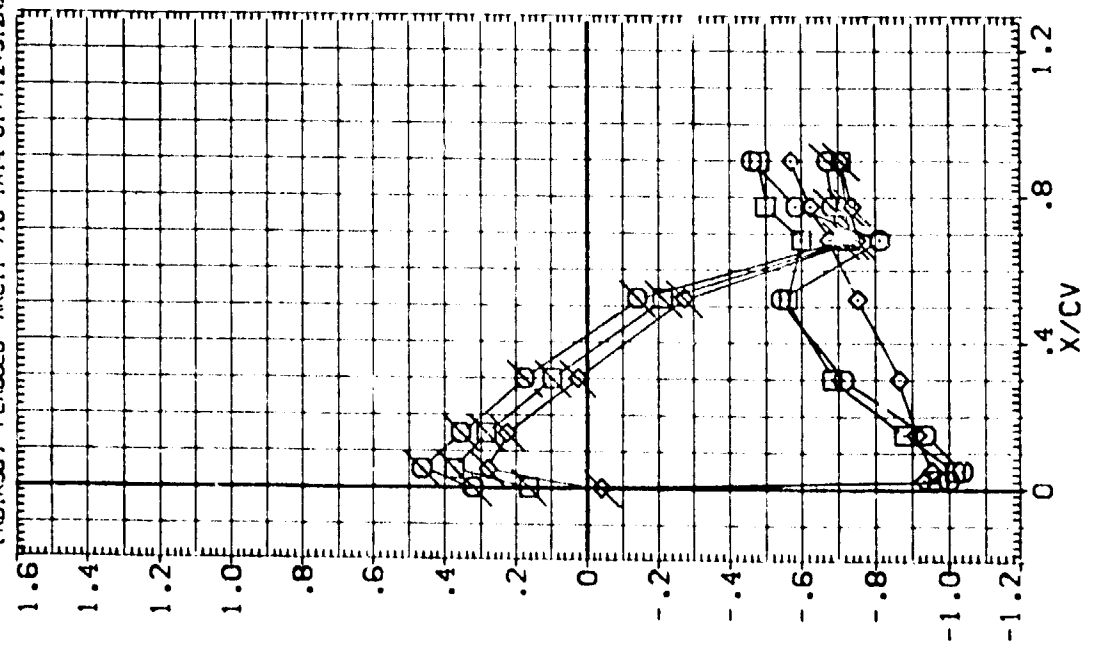


CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

PARAMETRIC VALUES  
MACH 1.050  
RUDDER .000  
ELEVON .000  
SPORRK .000

SYMBOL ALPHA0 Z/BV BETA0  
○ -8.080 .925 8.180  
□ -3.310  
◇ 7.930

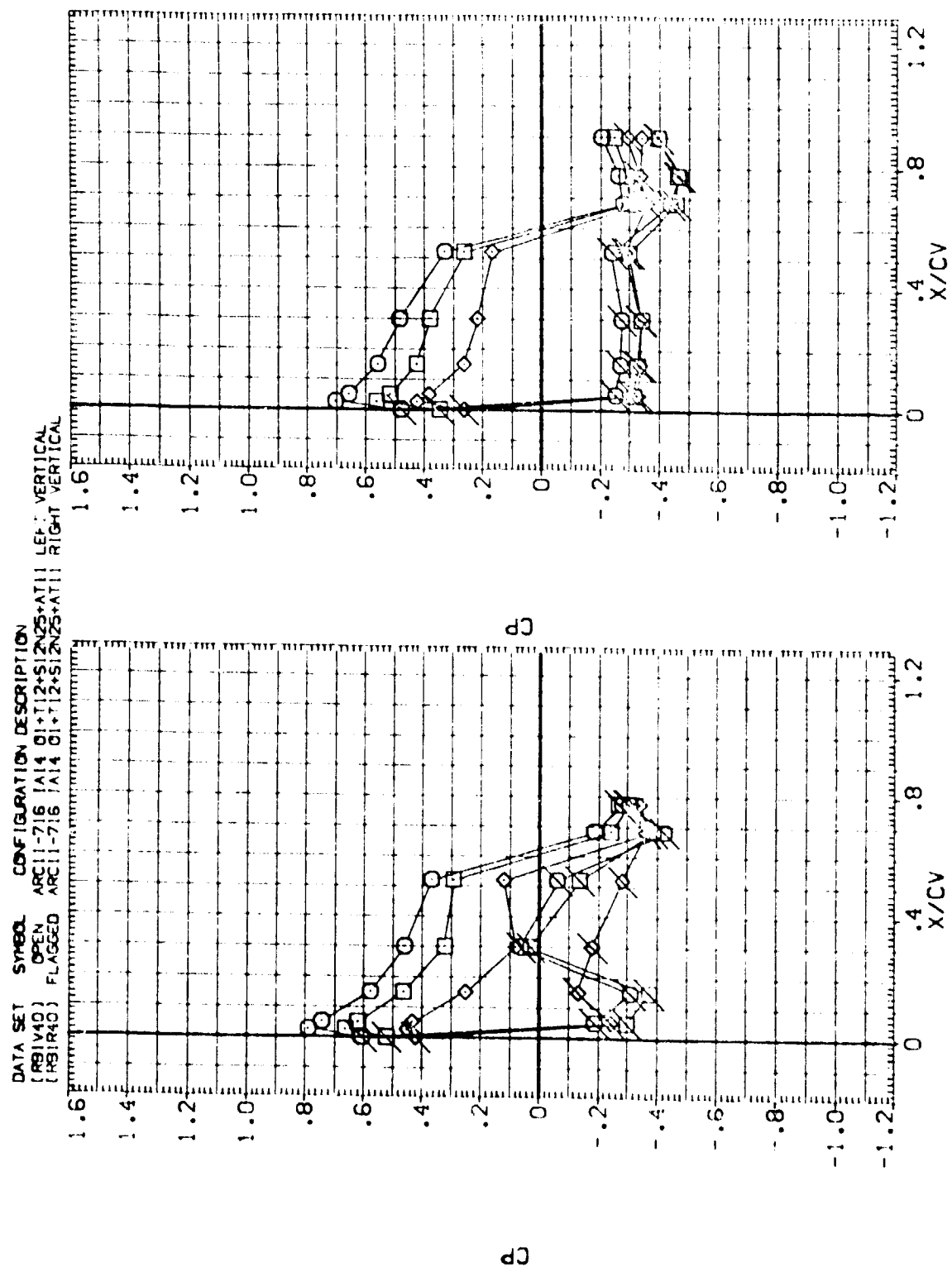
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
(RB1V38) OPEN ARC11-716 1A14 01+T112+S12N25+AT11 LEFT VERTICAL  
(RB1R38) FLAGGED ARC11-716 1A14 01+T112+S12N25+AT11 RIGHT VERTICAL



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

SYMBOL ALPHA-AD Z/BV BETA-AD  
 -7.920 .158 -8.040  
 -.370 .316  
 8.000

PARAMETRIC VALUES  
 MACH 1.400 ELEVON .000  
 RUDDER .000 SPOBRK .000

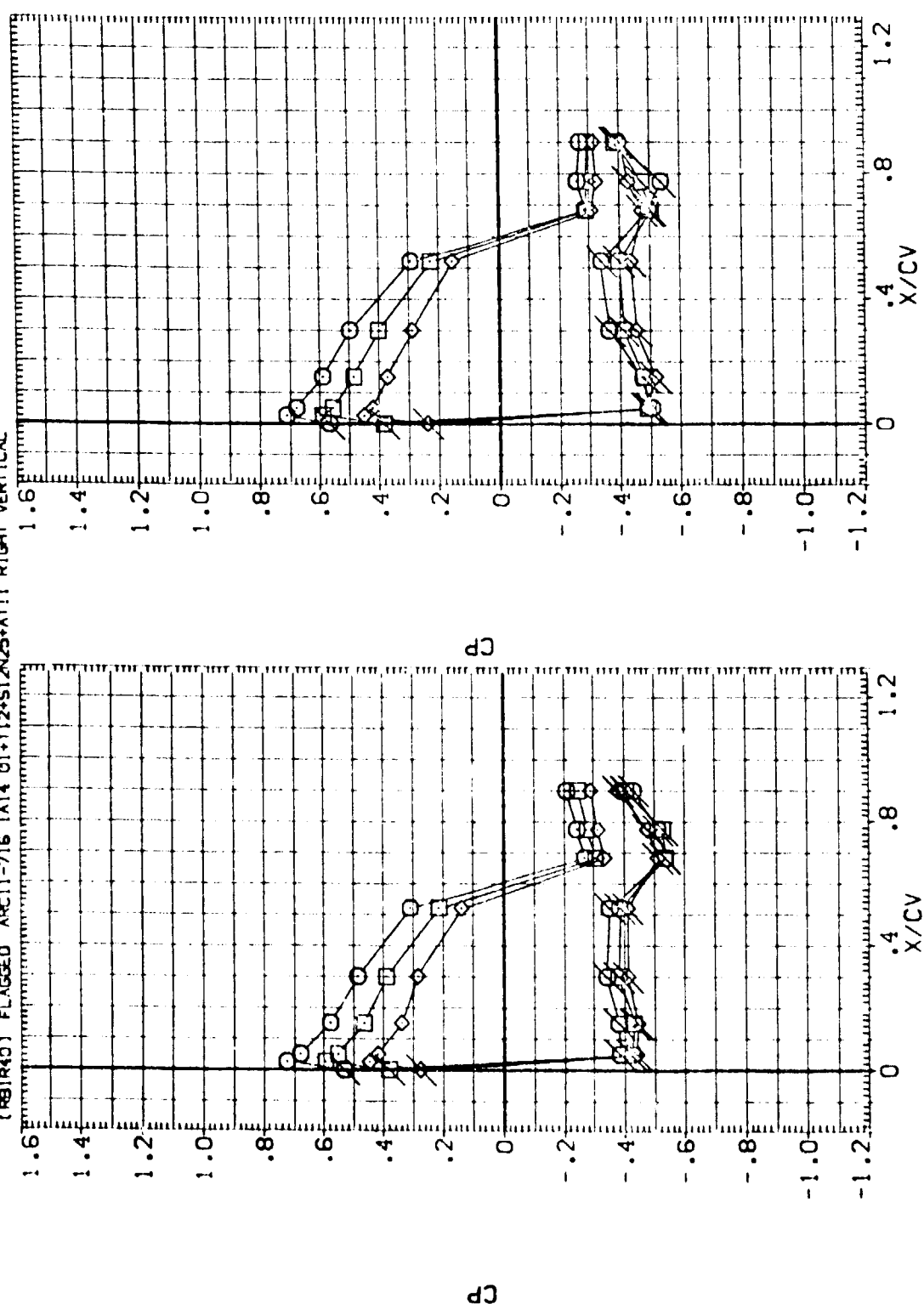


CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

PARAMETRIC VALUES  
 MACH 1.400  
 ELEVON .000  
 SPOILER .000

SYMBOL ALPHA Z/BV BETA  
 -7.920 .600 -8.040  
 -1.370 .840  
 8.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RB1V40) OPEN ARC11-716 [A14 01+T12-S12+Z5+AT11] LEFT VERTICAL  
 (RB1R40) FLAGGED ARC11-716 [A14 01+T12-S12+Z5+AT11] RIGHT VERTICAL



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

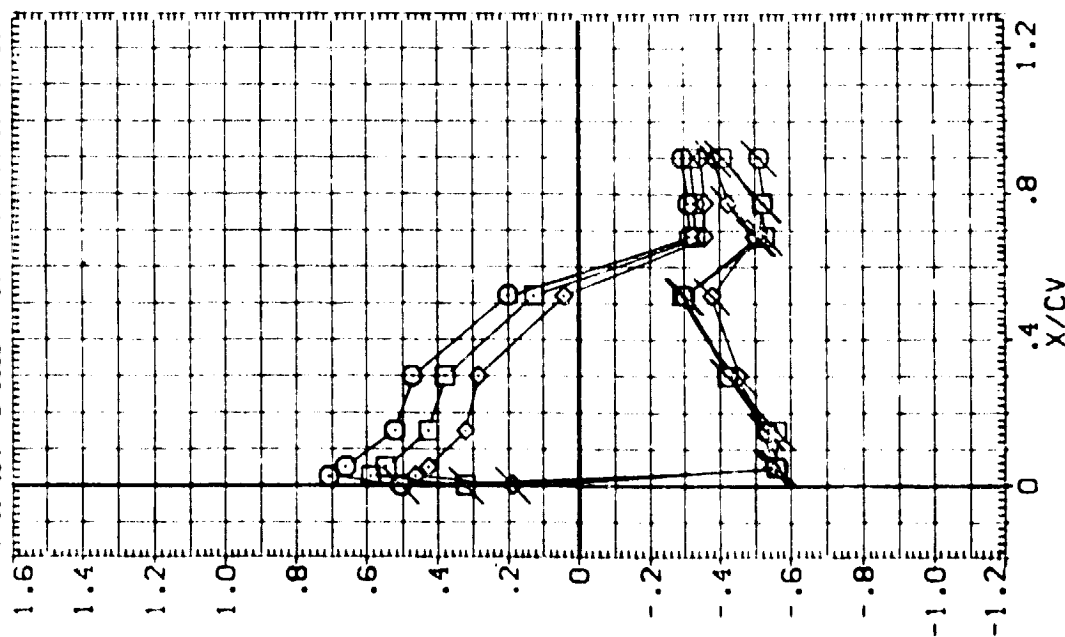
PARAMETRIC VALUES  
 MACH 1.400  
 ELEVON .000  
 RUDDER .000  
 SPEED .000

ALPHA 0  
 -7.920  
 -3.370  
 0.000

BETA 0  
 -8.040

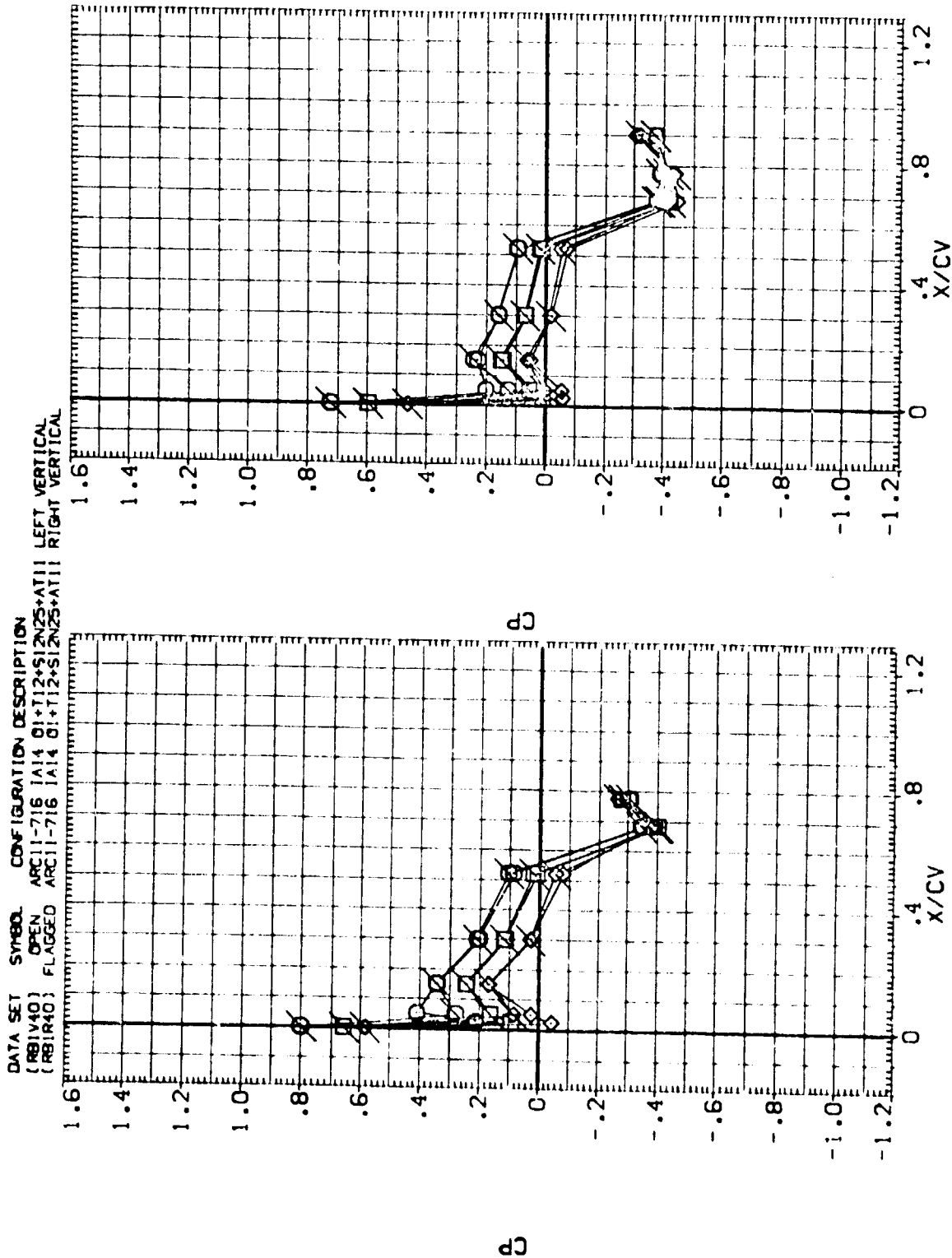
Z/BV .925

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R8) (V40) OPEN ARC 11-716 [A] 4 0 112 S 12 N 25 + A 111 LEFT VERTICAL  
 (R8) (R40) FLAGGED ARC 11-716 [A] 4 0 112 S 12 N 25 + A 111 RIGHT VERTICAL



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

SYMBOL	ALPHA	Z/BV	SETAD	MACH	PARAMETRIC VALUES
○	-7.920	.158	.030	RUDDER	1.400
□	-7.370	.316			ELEVON
◇	8.000				SPOILER
					.000
					.000



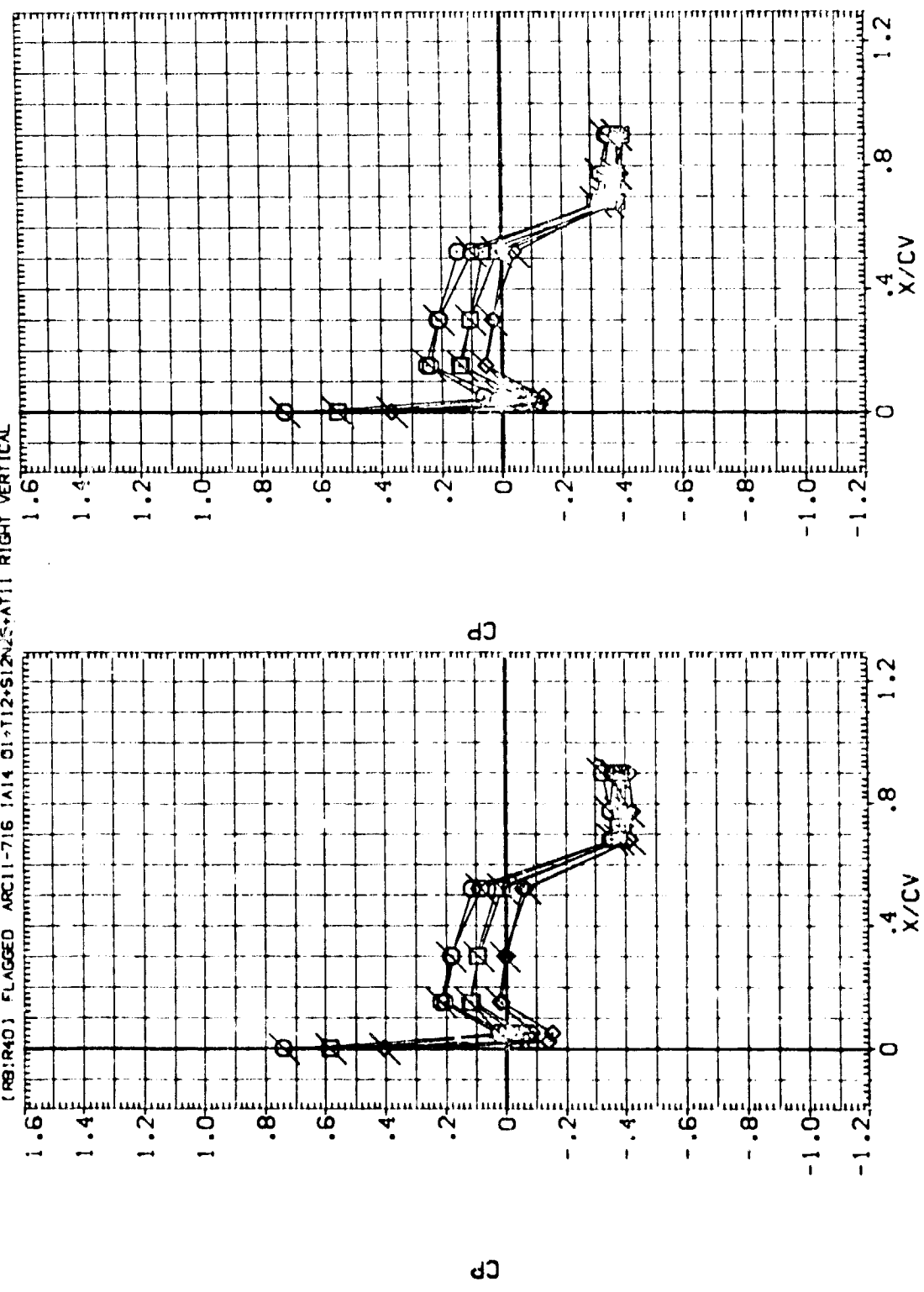
CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES



PARAMETRIC VALUES  
 MACH 1.400 ELEVON .000  
 RUDDER .000 SPOBRK .000

SYMBOL ALPHA0 Z/BV BETA0  
 -7.920 .600 .030  
 -1.370 .840  
 8.000

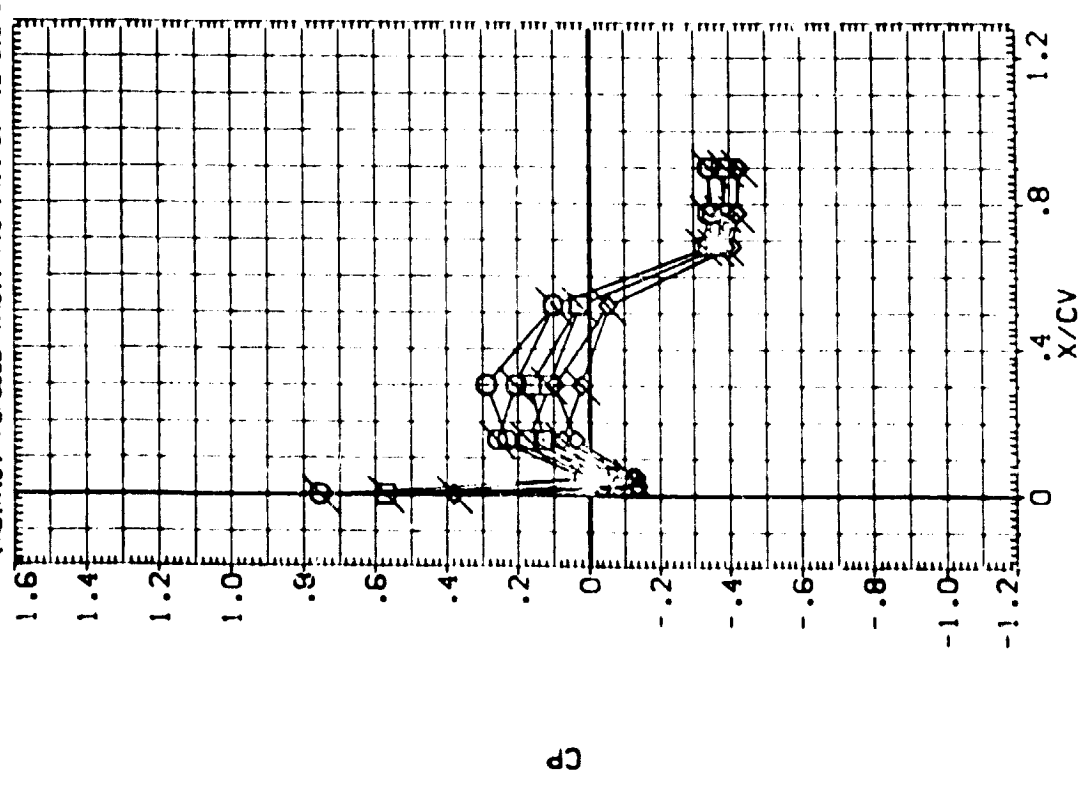
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RB1V40) OPEN ARC11-716 [A14 01+112+5] 2N25+AT11 LEFT VERTICAL  
 (RB1R40) FLAGGED ARC11-716 [A14 01+112+5] 2N25+AT11 RIGHT VERTICAL



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

SYMBOL	ALPHA	Z/BV	BETA	PARAMETRIC VALUES
○	-7.920	.925	.030	MACH
□	-1.370			1.400
◇	0.000			ELEVON
				.000
				SPDRK
				.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R8)I40) OPEN ARC11-716 I14 01+112+12N25+AT11 LEFT VERTICAL  
 (R8)I40) FLAGGED ARC11-716 I14 01+112+12N25+AT11 RIGHT VERTICAL

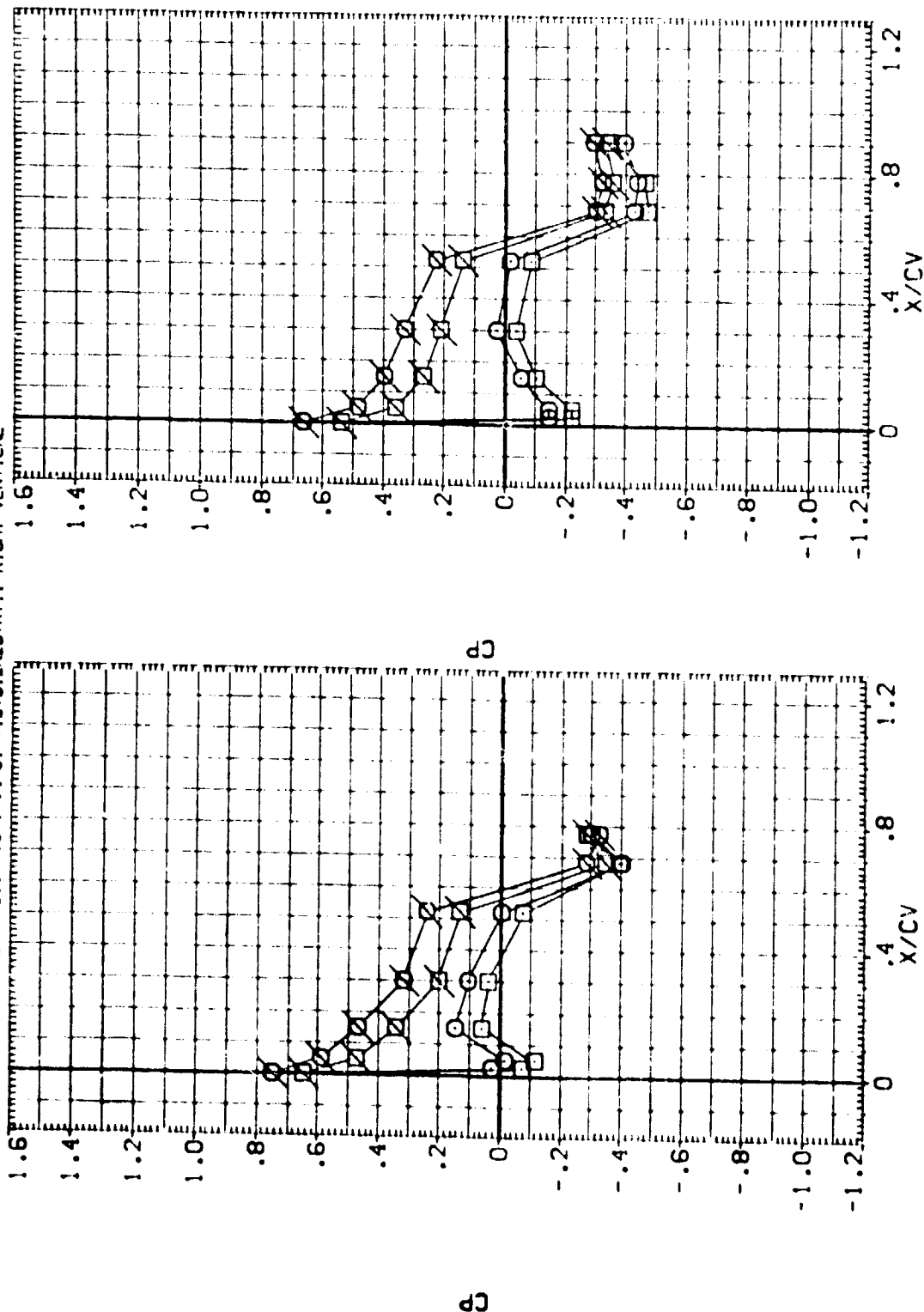


SYMBOL  
□

ALPHA-0 -7.920  
Z/BV .158  
BETA-0 4.100  
- .370 .316

PARAMETRIC VALUES  
MACH 1.400  
RUDDER .000  
ELEVON .000  
SPDBRK .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
(RB:V40) OPEN ARC [-7:6] A14 01:12-S12N3+AT11 LEFT VERTICAL  
(RB:V40) FLAGED ARC [-7:6] A14 01:12-S12N3+AT11 RIGHT VERTICAL



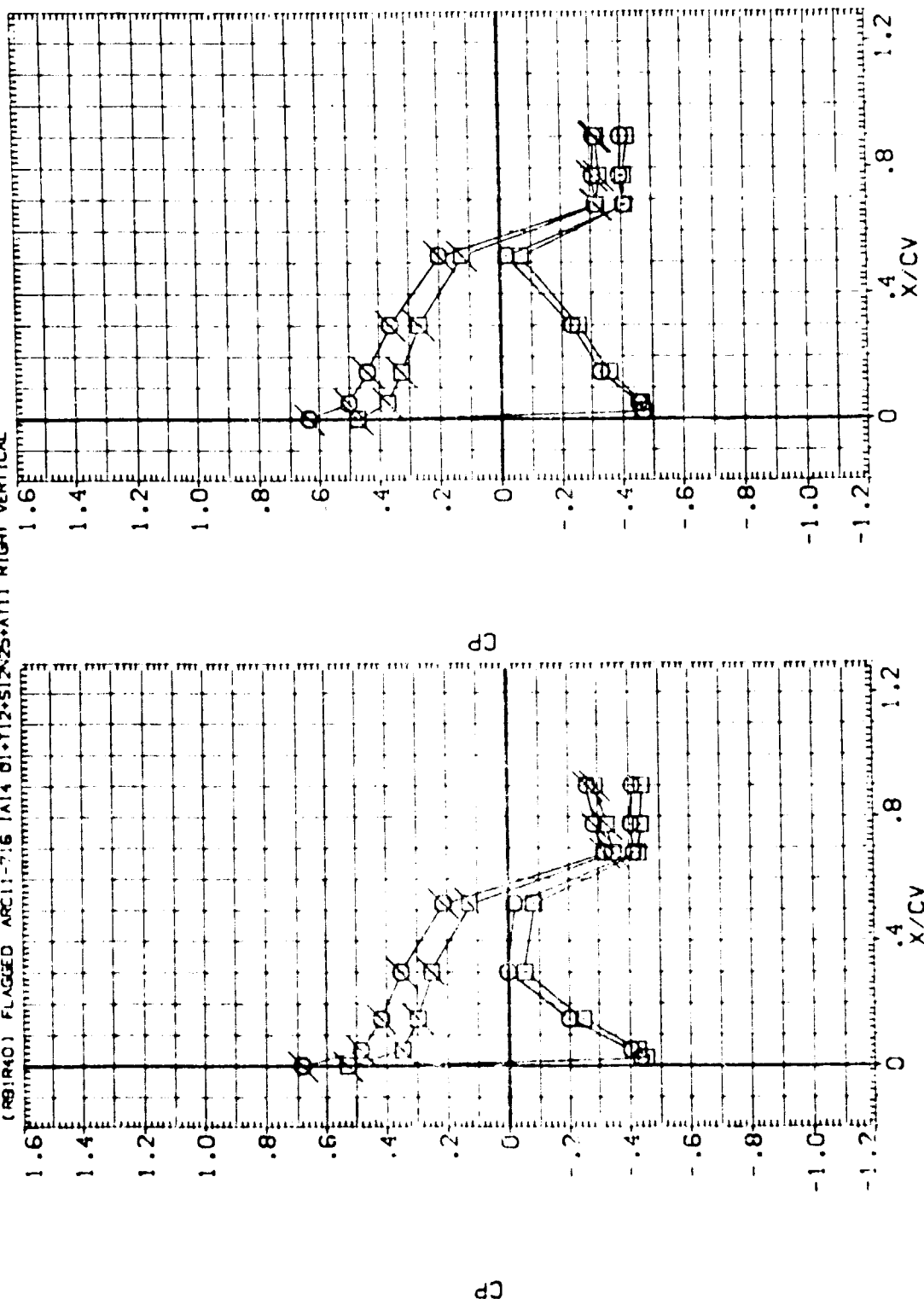
CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

PARAMETRIC VALUES  
 1.400 ELEVON .000  
 1.000 SPOILER .000

MACH  
 RUDDER

SYMBOL ALPHA0 Z/BV BETA0  
 -7.920 .600 4.100  
 -.370 .840

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RB1V40) OPEN ARC11-716 [A14 C1+112-S12-25-AT1] LEFT VERTICAL  
 (RB1R40) FLAGGED ARC11-716 [A14 C1+112-S12-25-AT1] RIGHT VERTICAL

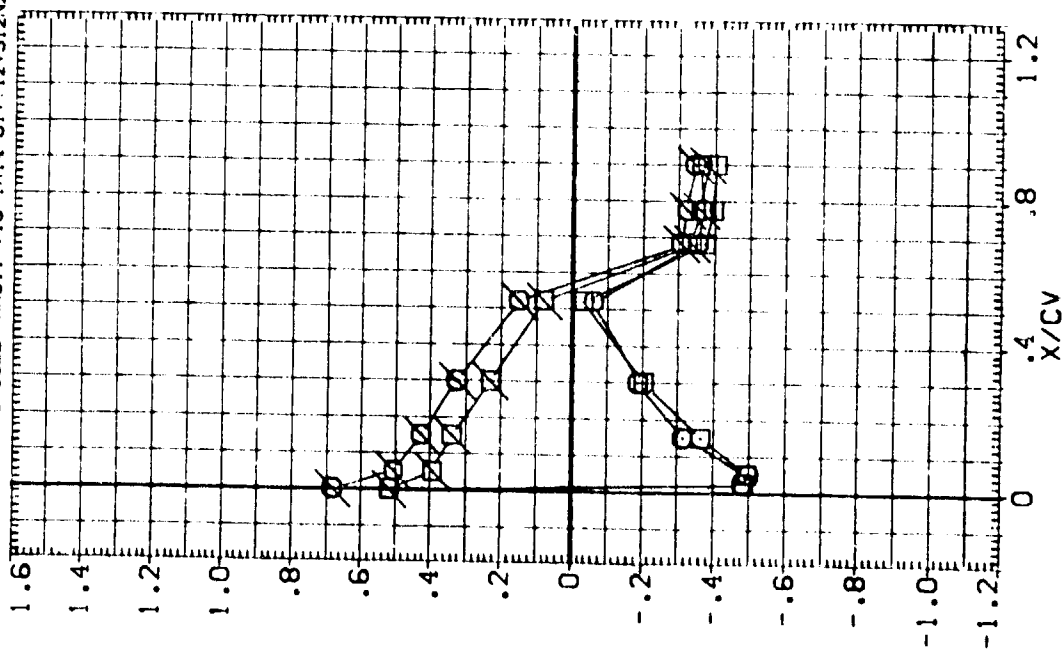


CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

SYMBOL ALPHA0 Z/BV BETA0  
 -7.920 .925 4.100  
 -1.370

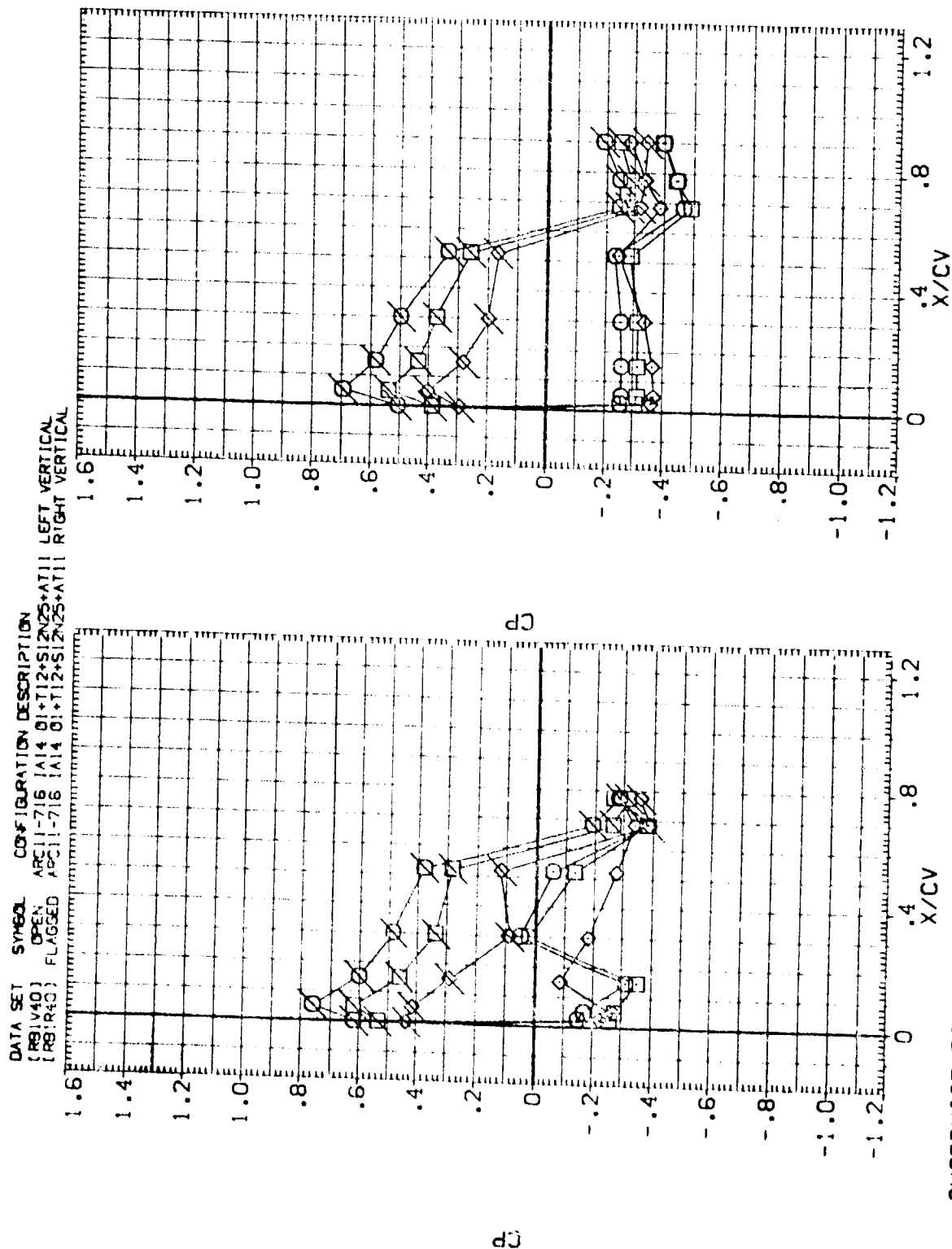
PARAMETRIC VALUES  
 MACH 1.400 ELEVON .000  
 RUDDER .000 SPOILER .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RB1V40) OPEN ARC11-716 1A14 01+T12+S12N25+AT11 LEFT VERTICAL  
 (RB1R40) FLAGGED ARC11-716 1A14 01+T12+S12N25+AT11 RIGHT VERTICAL



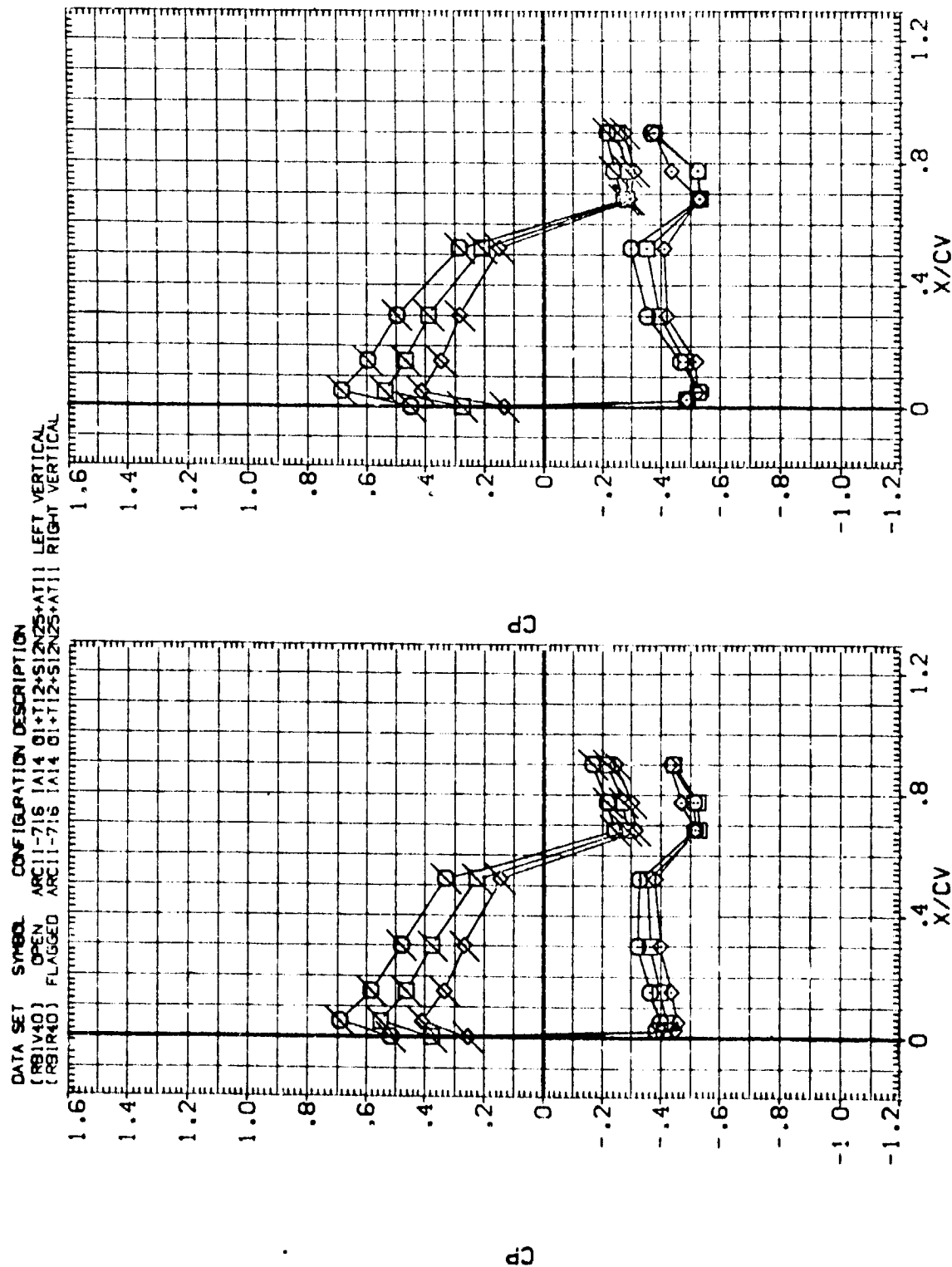
CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

SYMBOL	ALPHA	Z/BV	BETA	MACH	PARAMETRIC VALUES
○	-7.920	.158	8.190	RUDDER	1.400 ELEVON .000
□	-3.370	.316			1.000 SPUBRK .000
◇	8.000				



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

SYMBOL	ALPHA	Z/BV	BETA	PARAMETRIC VALUES
○	-7.920	.600	8.190	MACH 1.400 ELEVON .000
□	-.370	.840		RUDDER .000 SPOILER .000
◇	8.000			



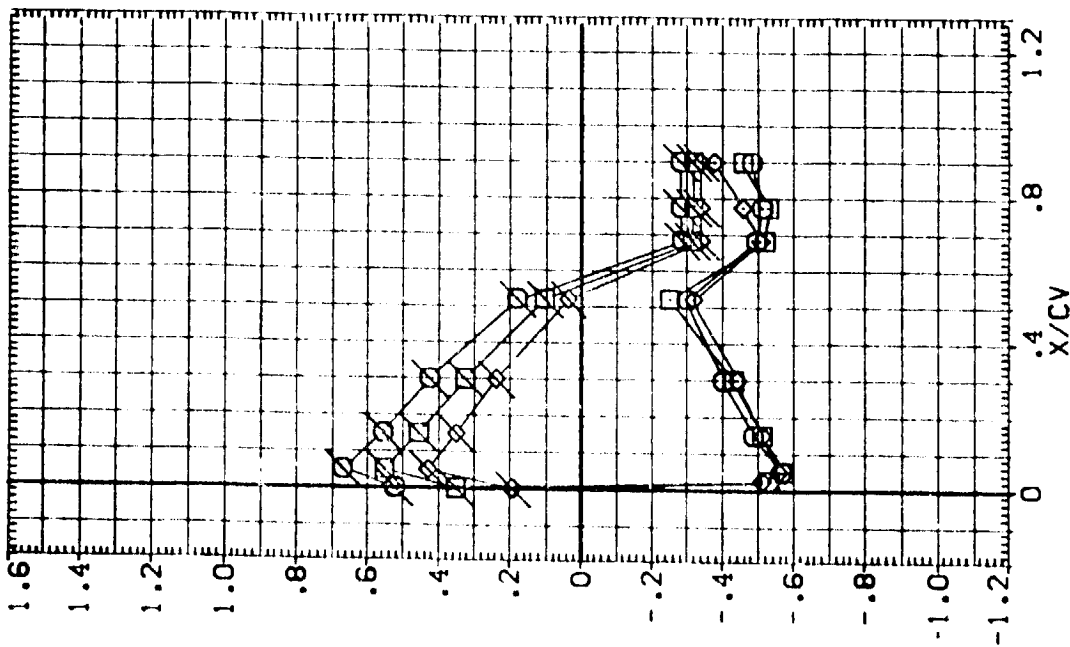
CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES

PARAMETRIC VALUES  
 MACH 1.400 ELEVON .000  
 RUDDER .000 SPOBRK .000

ALPHA 0  
 BETA 0

SYMBOL ALPHA 0 Z/BV .925 BETA 0  
 -7.820  
 -370  
 9.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RB) (V40) OPEN ARC 11-716 (A) 4 0 112+SI2N25+AT 11 LEFT VERTICAL  
 (RB) (V40) FLAGGED ARC 11-716 (A) 4 0 112+SI2N25+AT 11 RIGHT VERTICAL



CHORDWISE DISTRIBUTION OF LEFT AND RIGHT SURFACE VERTICAL TAIL PRESSURES



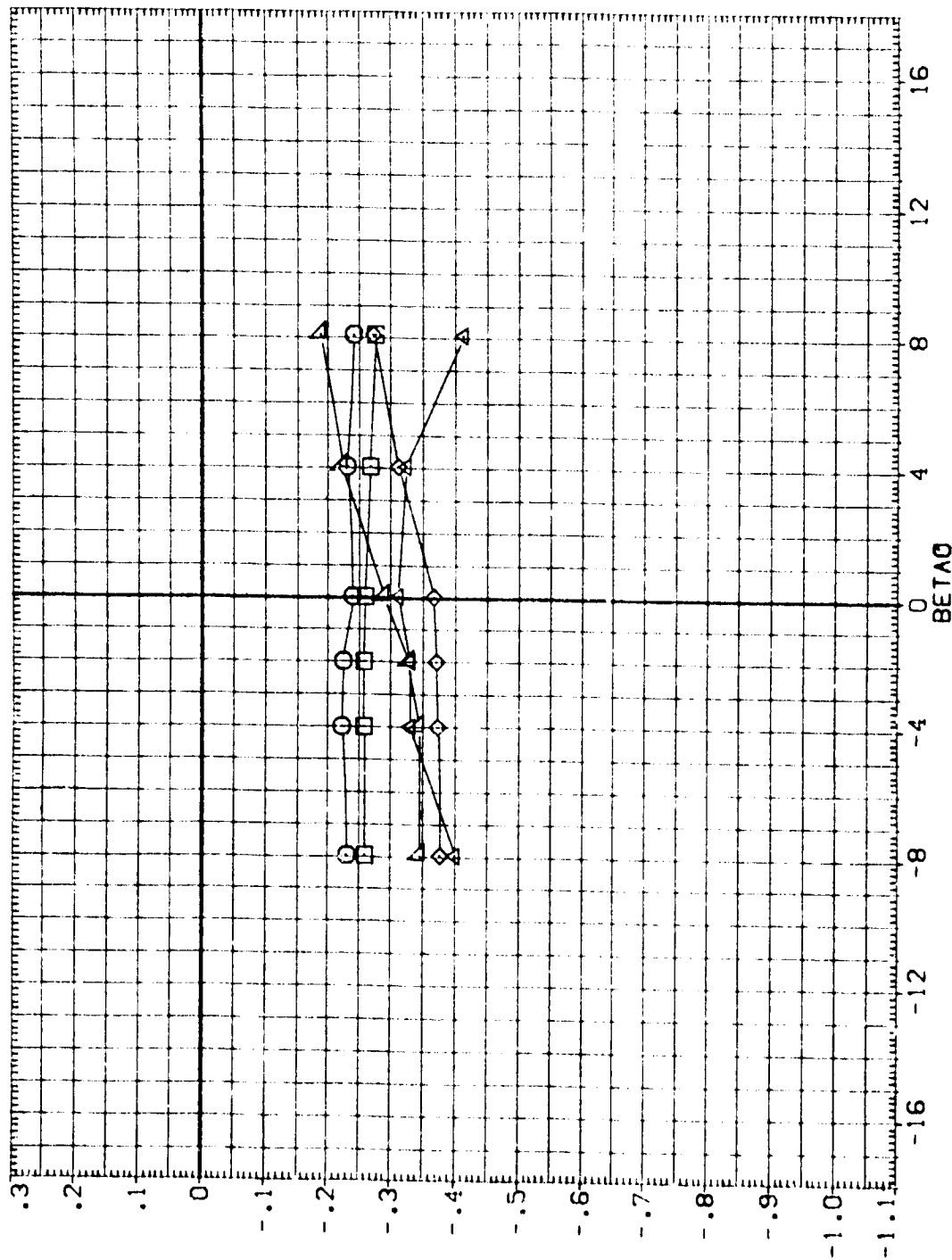
ARC11-716 IA14 01+T12+S12N25+AT10 FUS+RUDFL BASE (RB1C33)

SYMBOL  
 ○ □ ◇ △

TAP NO  
 1.000  
 2.000  
 3.000  
 4.000  
 5.000

ALPHA  
 -8.220

PARAMETRIC VALUES  
 MACH 1.250  
 RUDEEP .000  
 ELEVON .000  
 SPOBRK .000



PRESSURE COEFFICIENT, CP

ORBITER BASE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 FUS+RUDEL BASE (RB1C33)

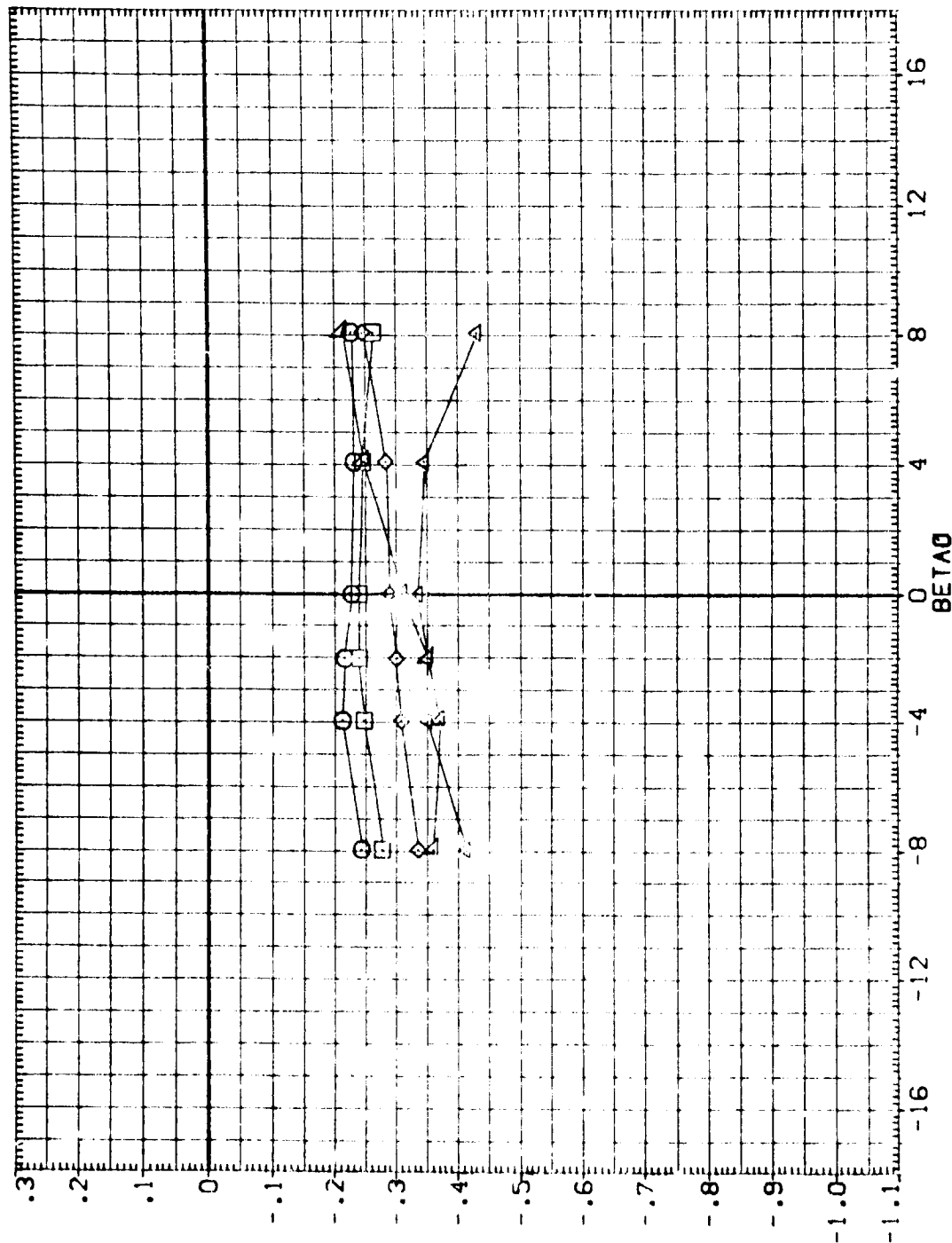
SYMBOL  
 ▽ □ ◇ △

TAP NO  
 1.000  
 2.000  
 3.000  
 4.000  
 5.000

ALPHA/5  
 .000 -4.200

PARAMETRIC VALUES  
 MACH  
 RUDDER

1.250  
 .000  
 .000  
 .000



PRESSURE COEFFICIENT, CP

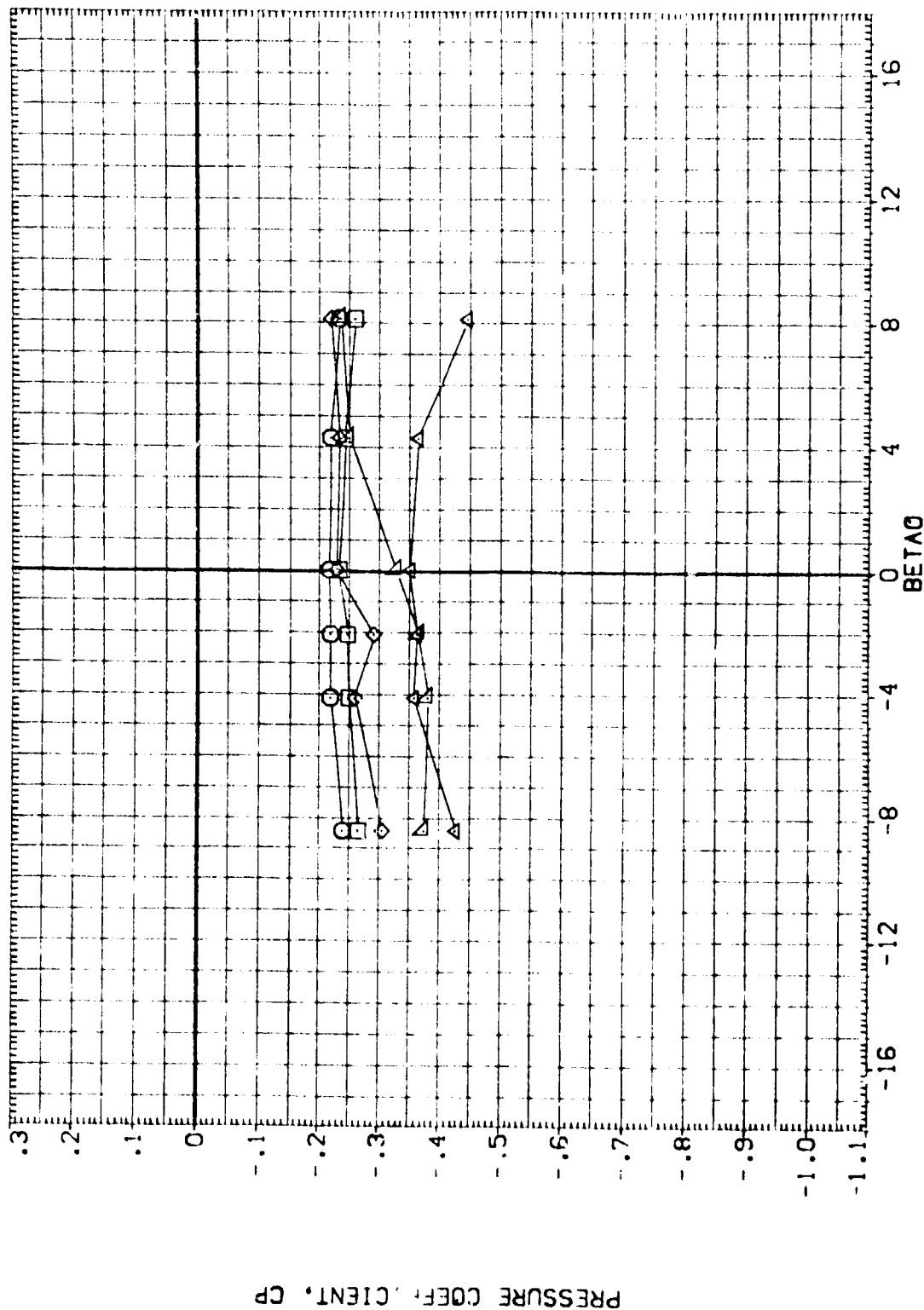
ORBITER BASE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 FUS+RUDFL BASE (RBIC33)

SYMBOL  
 1.000  
 2.000  
 3.000  
 4.000  
 5.000

TAP NO  
 1.000  
 2.000  
 3.000  
 4.000  
 5.000

PARAMETRIC VALUES  
 MACH 1.250 ELEVON .000  
 RUDDER .000 SPOBRK .000

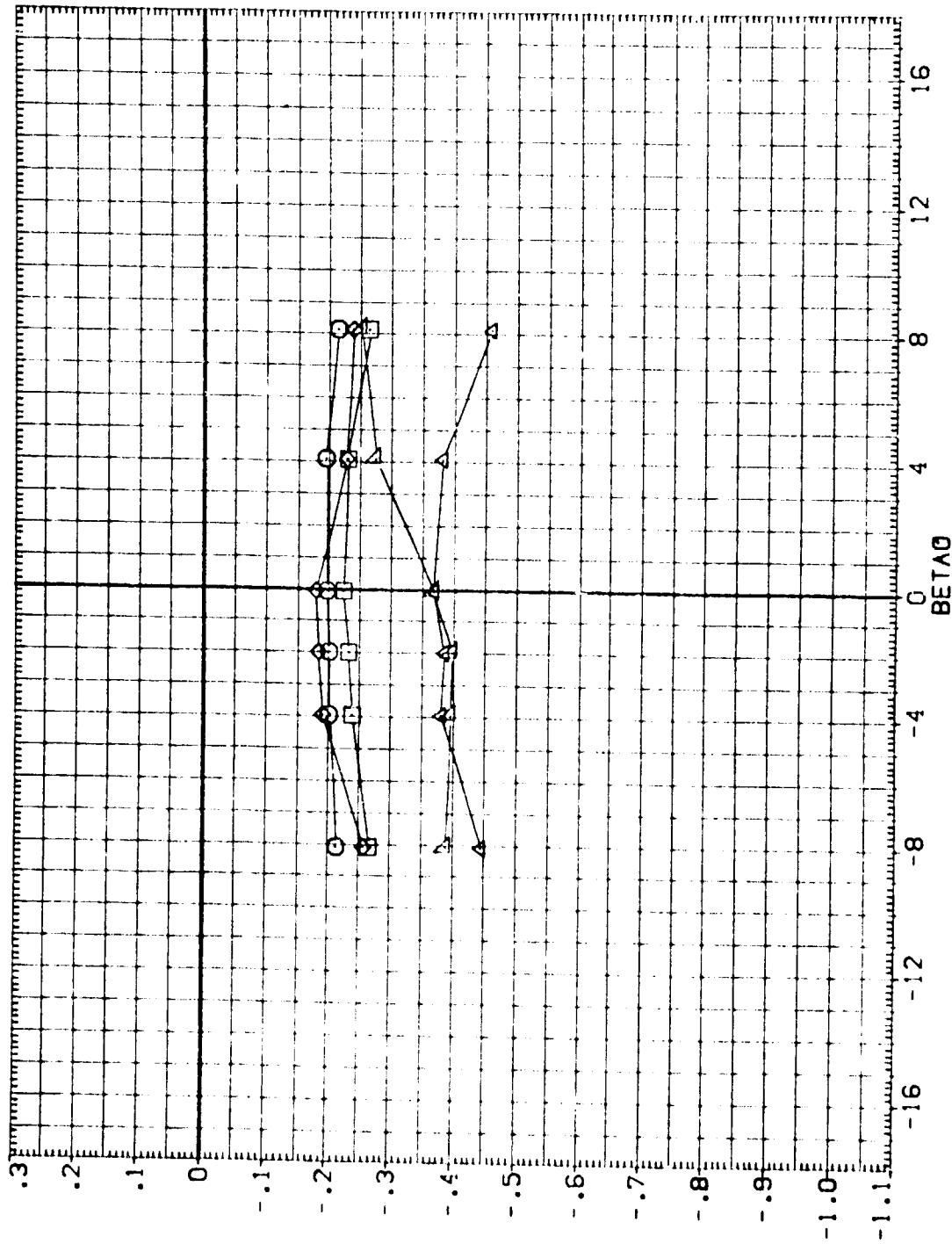


ORBITER BASE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 FUS+RUDFL BASE (RB1C33)

PARAMETRIC VALUES  
 MACH 1.250 ELEVON .000  
 RUDDER .000 SPOBRK .000

SYMBOL TAP NO ALPHA0  
 1.000 .000 4.300  
 2.000  
 3.000  
 4.000  
 5.000



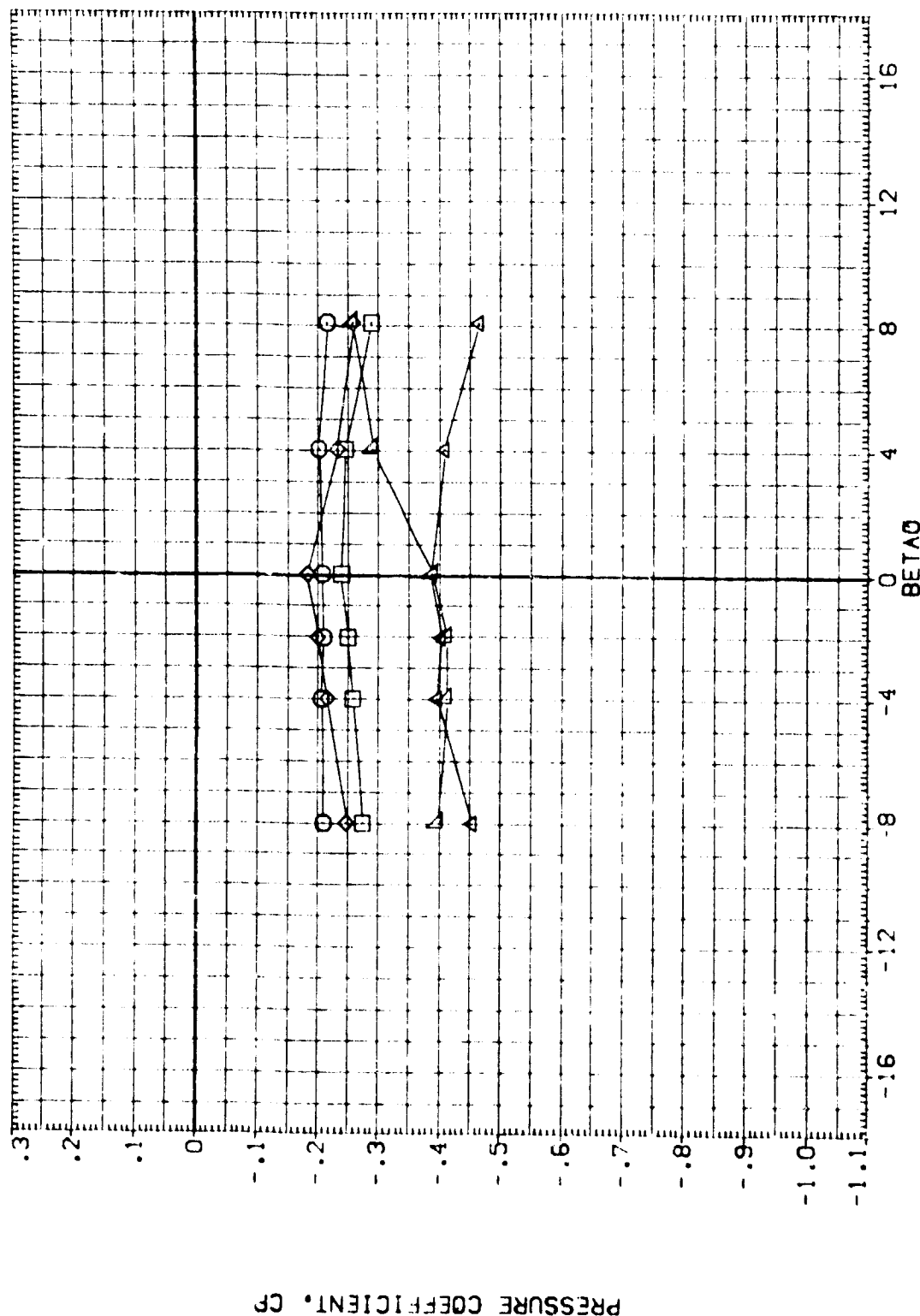
ORBITER BASE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 FUS+RUDFL BASE (RBIC33)

SYMBOL  
 ○ □ ◇ △

TAP NO  
 1.000  
 2.000  
 3.000  
 4.000  
 5.000

PARAMETRIC VALUES  
 MACH 1.250 ELEVON .000  
 RUDDER .000 SPOBRK .000



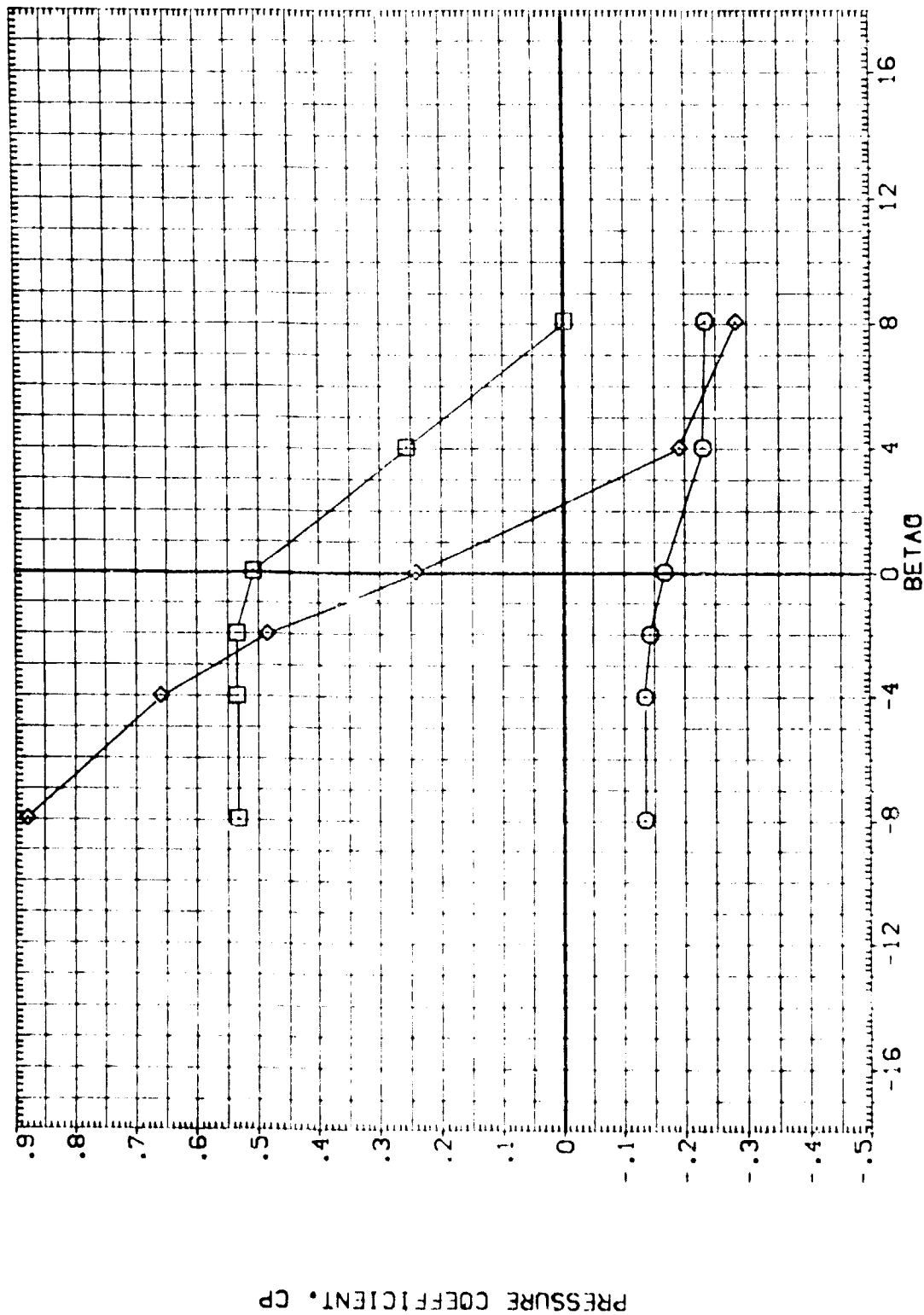
ORBITER BASE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 OMS NOZZLE (RB1E33)

SYMBOL  
 ○  
 □  
 ◇

PHI  
 135.000  
 160.000  
 225.000

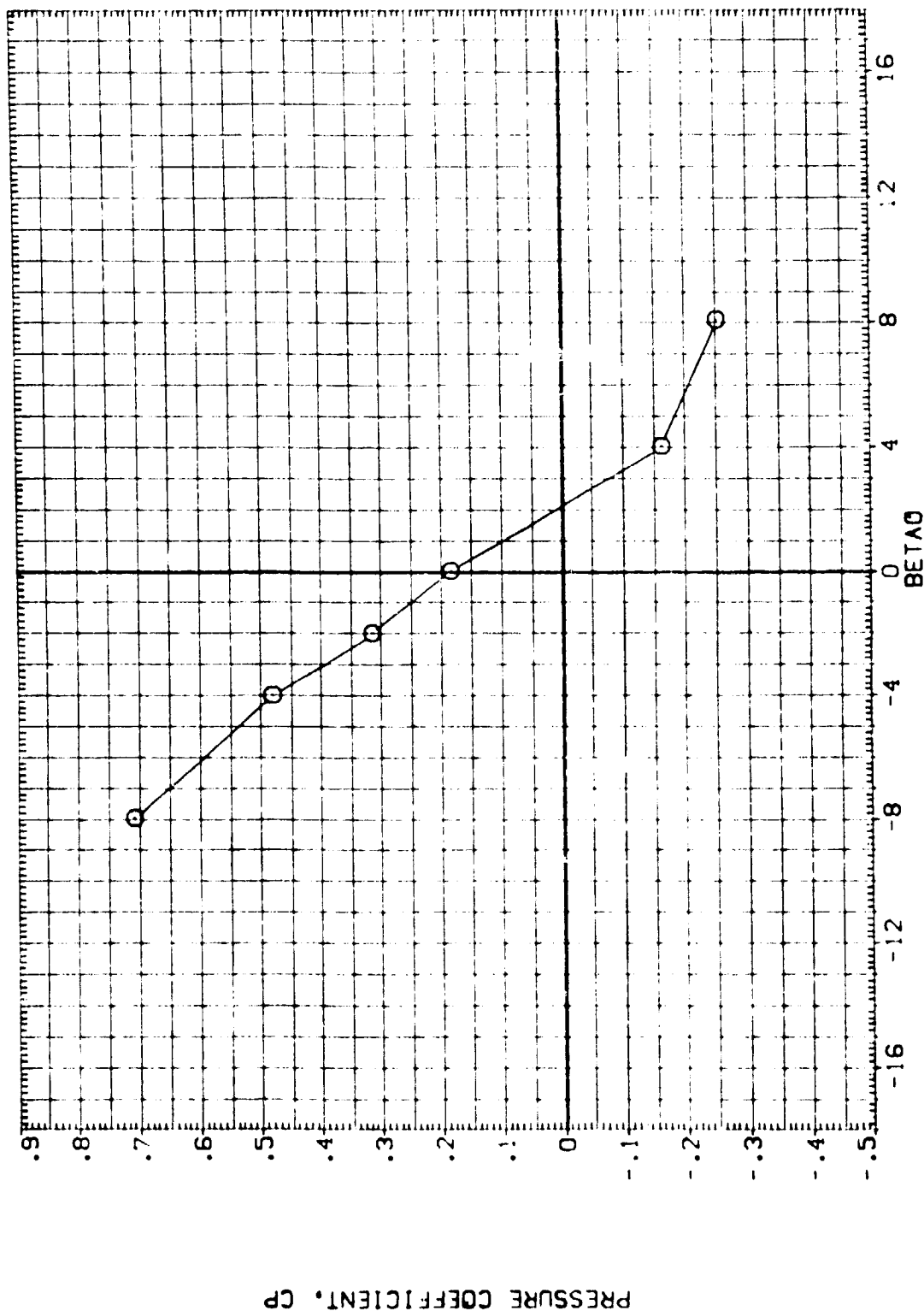
PARAMETRIC VALUES  
 MACH 1.250  
 RUDDER .000  
 ELEVON .000  
 SPOBRK .000



OMS NOZZLE PRESSURES

ARC11-716 1A14 01+T12+S 2N25+AT10 OMS NOZZLE (RB1E33)

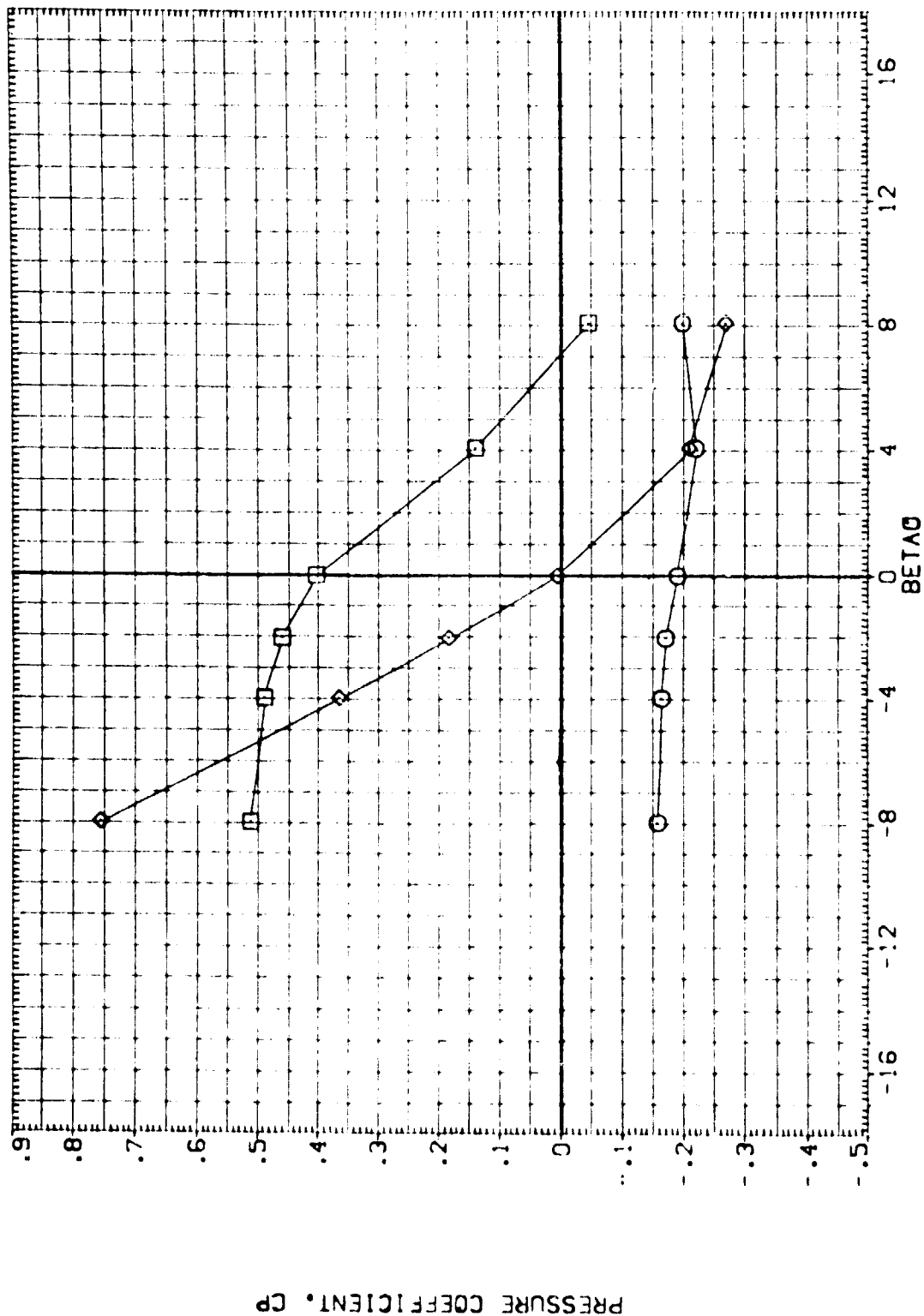
SYMBOL	PHI	X/LNM	ALPHA0	PARAMETRIC VALUES	
O	180.000	.400	-8.220	MACH	ELEVON
				RUDER	SPOBRK
					.000
					.000



OMS NOZZLE PRESSURES

ARC11-716 1A14 C1+T12+S12N25+AT10 OMS NOZZLE (RB1E33)

SYMBOL	PHI	X/LUM	ALPHA	MACH	ELEVON	SPDRK
○	135.000	.200	-4.200	.000	.000	.000
□	160.000			.000	.000	.000
◇	225.000			.000	.000	.000



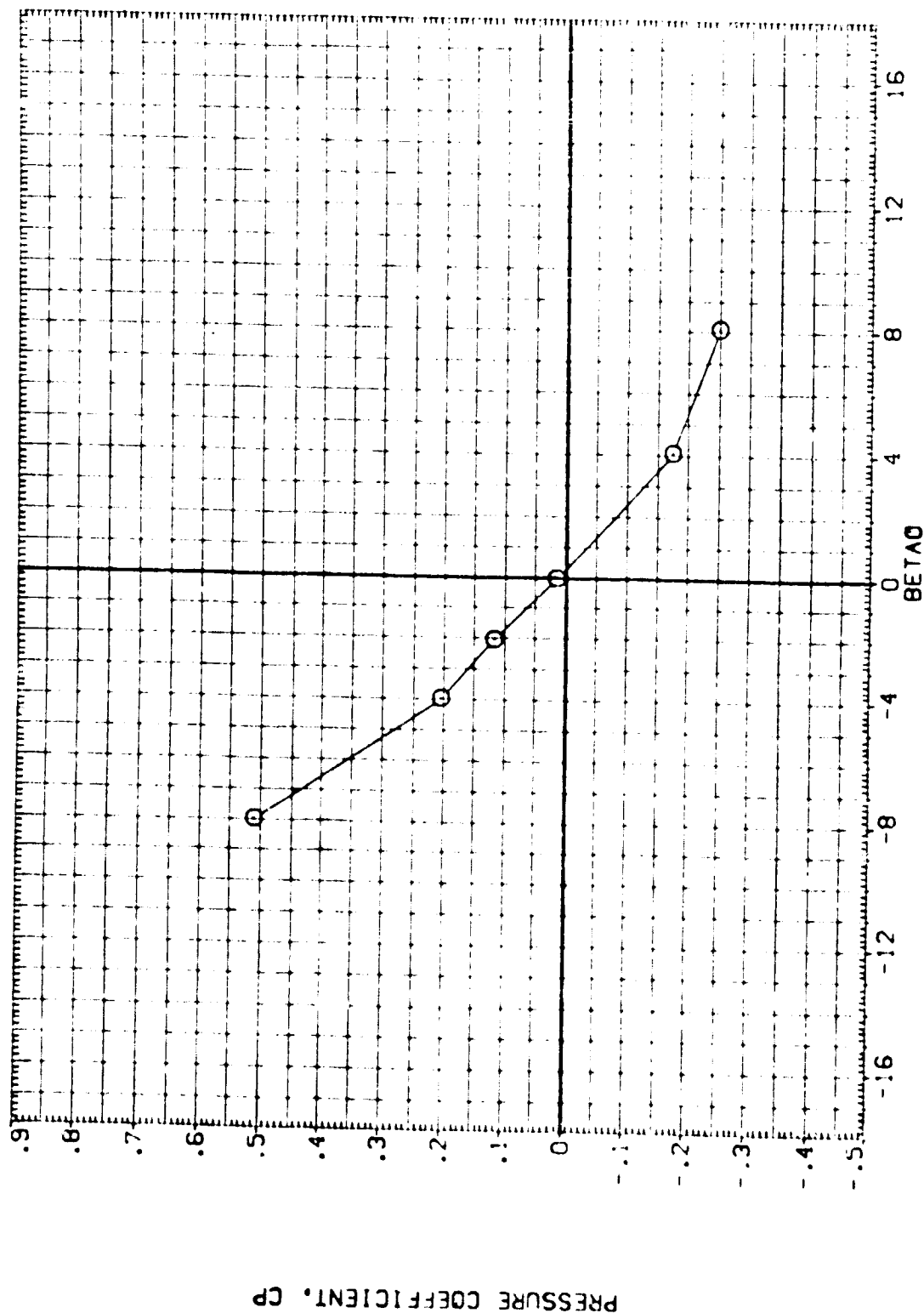
OMS NOZZLE PRESSURES



ARC11-716 1A14 01+T12+S12N25+AT10 OMS NOZZLE (RB1E33)

SYMBOL 0 P-1 180.000 X/LIN .400 ALPHA0 -4.200

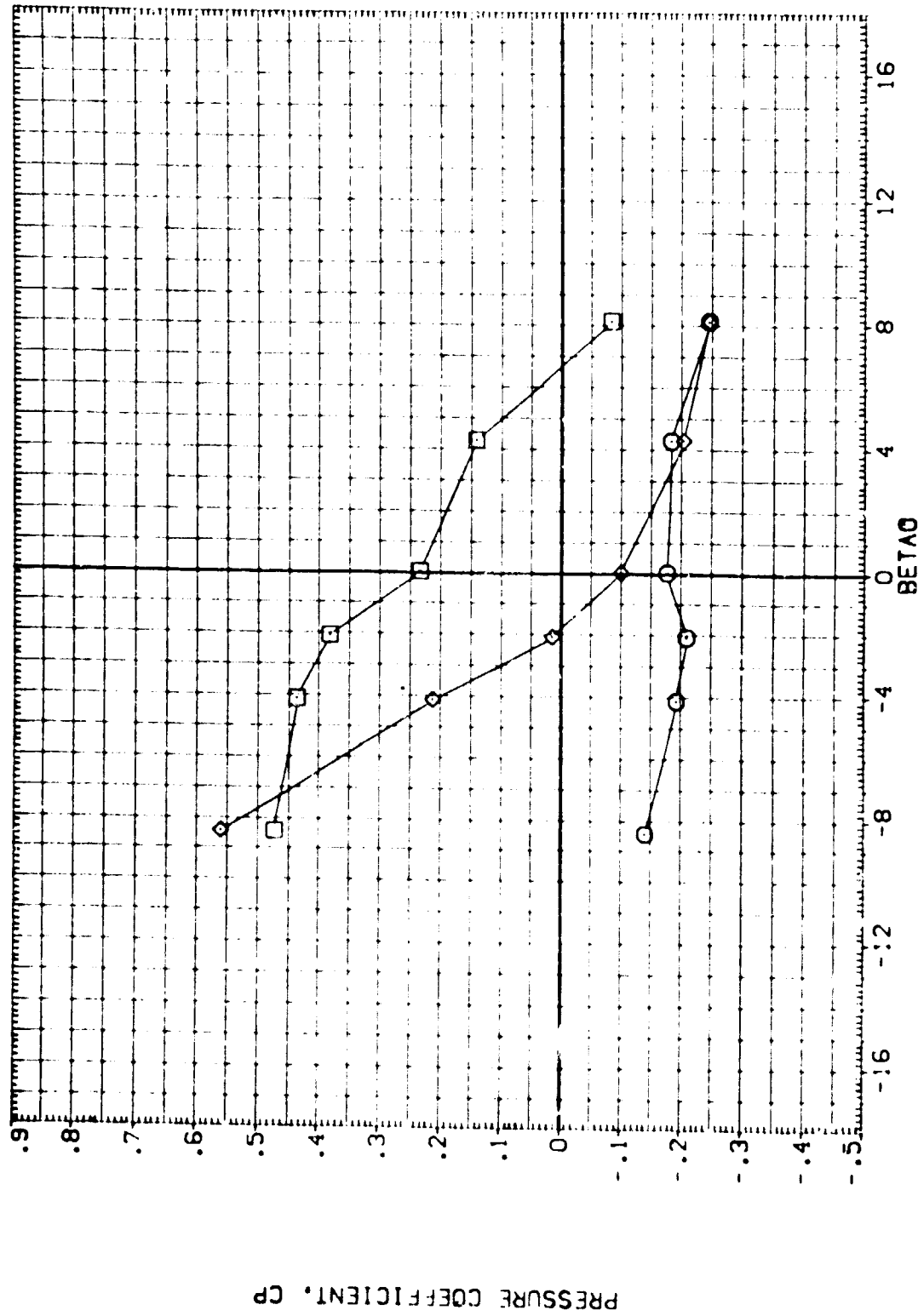
PARAMETRIC VALUES  
MACH 1.250 ELEVON .000  
RUDDER .000 SPOILER .000



OMS NOZZLE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 OMS NOZZLE (RB1E33)

SYMBOL	PHI	X/LM	ALPHA	MACH	PARAMETRIC VALUES
◇	135.000	.200	-.760	RUDDER	1.250 ELEVON .000
□	160.000				.000 SPEEDK .000
◇	225.000				



OMS NOZZLE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 OMS NOZZLE (RB1E33)

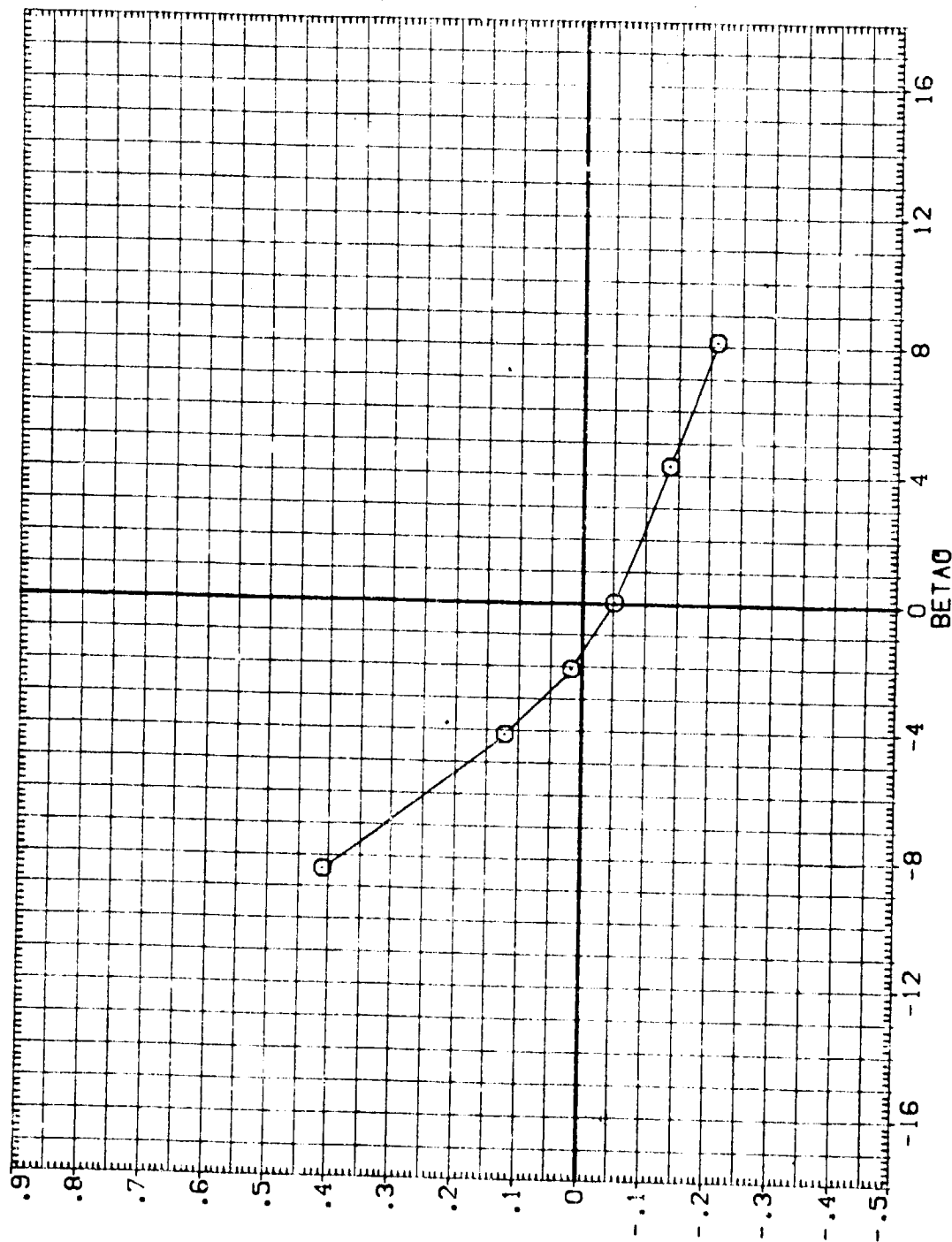
SYMBOL  
O

PHI  
180.000

X/LNH  
.400

ALPHA0  
-.750

PARAMETRIC VALUES  
MACH 1.250 ELEVON .000  
RUDDER .000 SPEED/K .000



OMS NOZZLE PRESSURES

ARC11-716 1A14 01+112+S12N25+AT10 0MS NOZZLE (RB1E33)

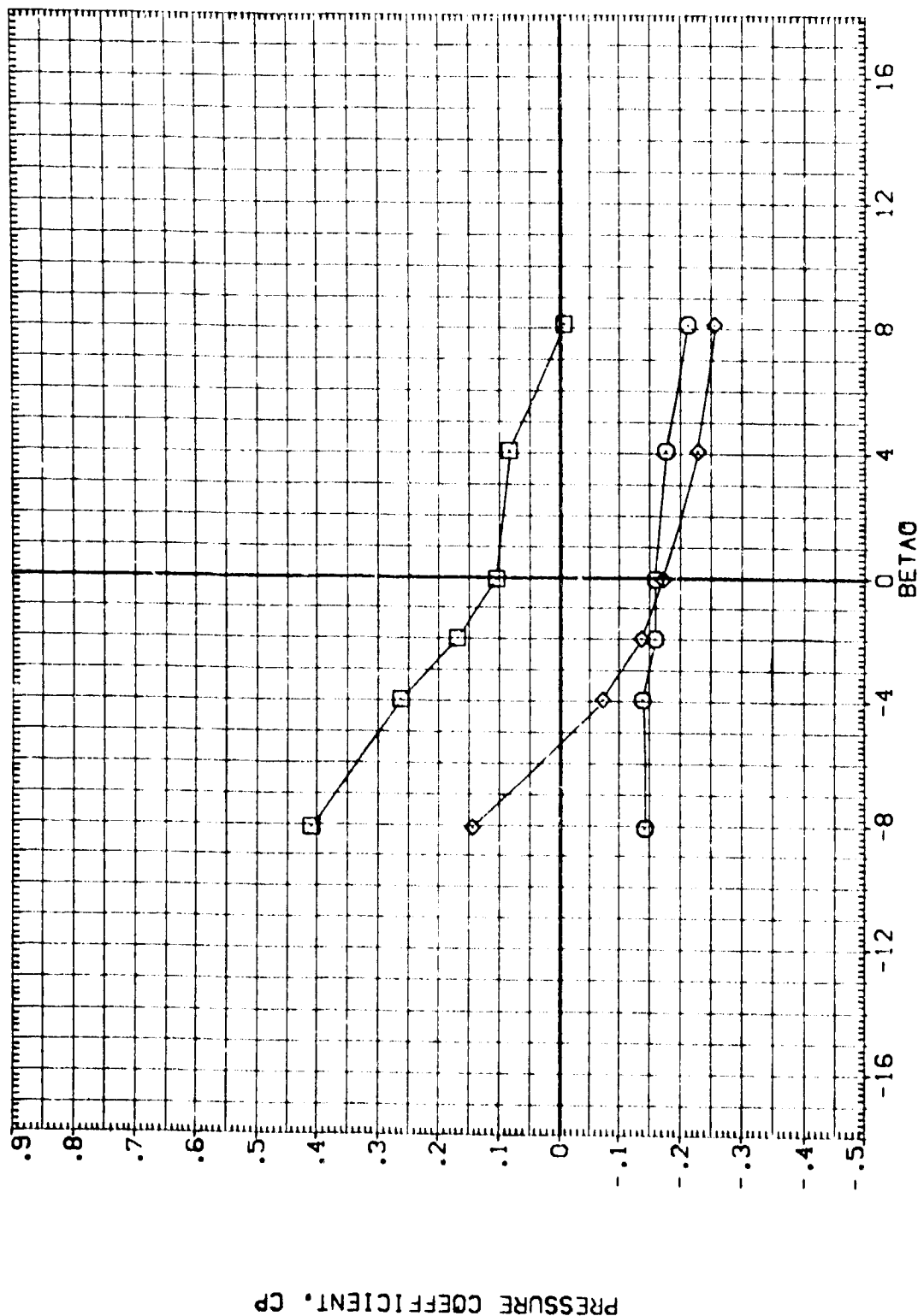
SYMBOL

135.000  
180.000  
225.000

X/LNH .200  
ALPHA0 4.300

PARAMETRIC VALUES

NACH 1.250  
RUDDER .000  
ELEVON .000  
SPDRK .000



0MS NOZZLE PRESSURES

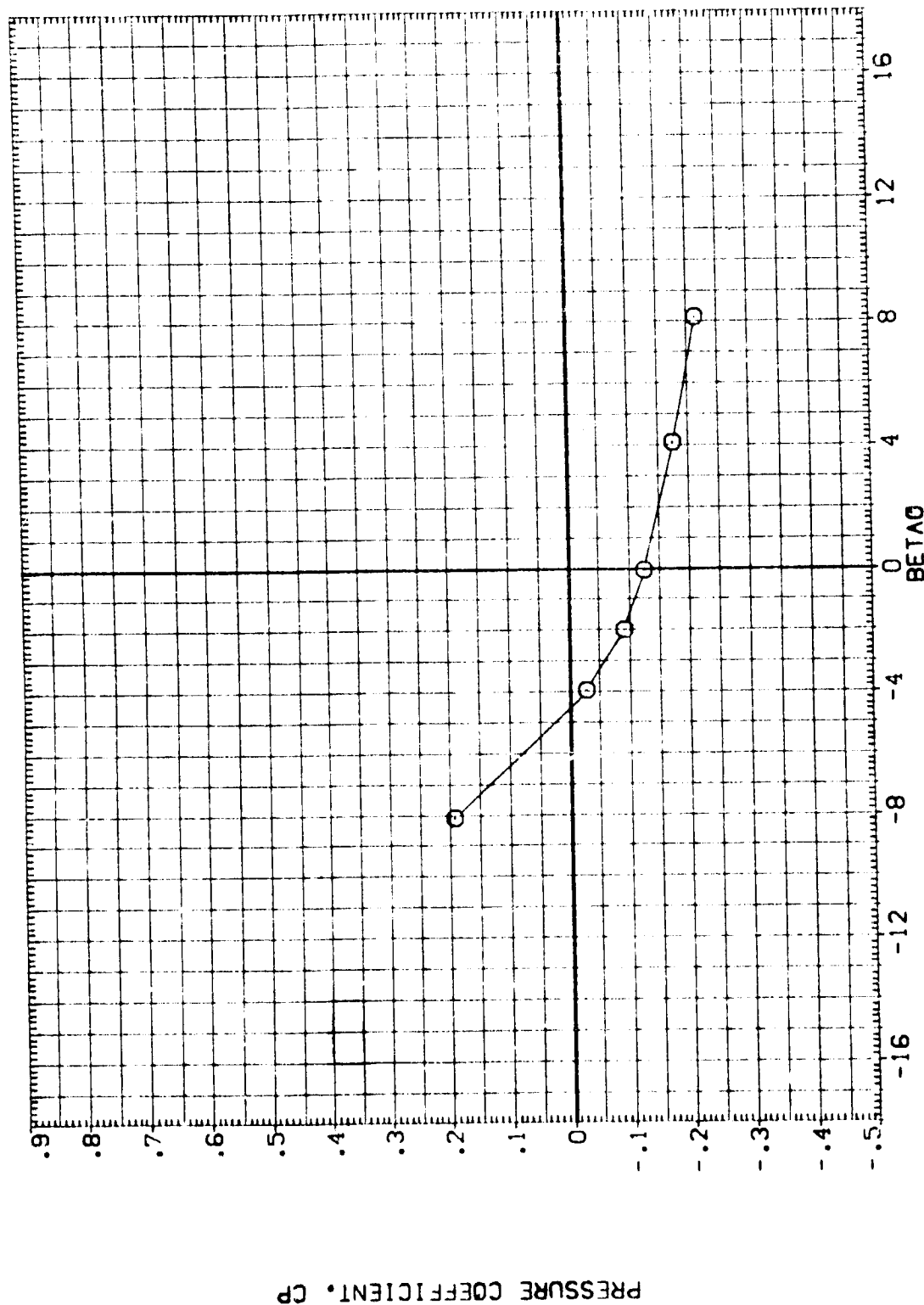
ARC11-716 1A14 01+T12+S12N25+AT10 OMS NOZZLE (RB1E33)

SYMBOL PH1 180.000

X/LNH .400

ALPHA0 4.300

PARAMETRIC VALUES  
MACH 1.250  
ELEVON .000  
RUDDER .000  
SPDRK .000

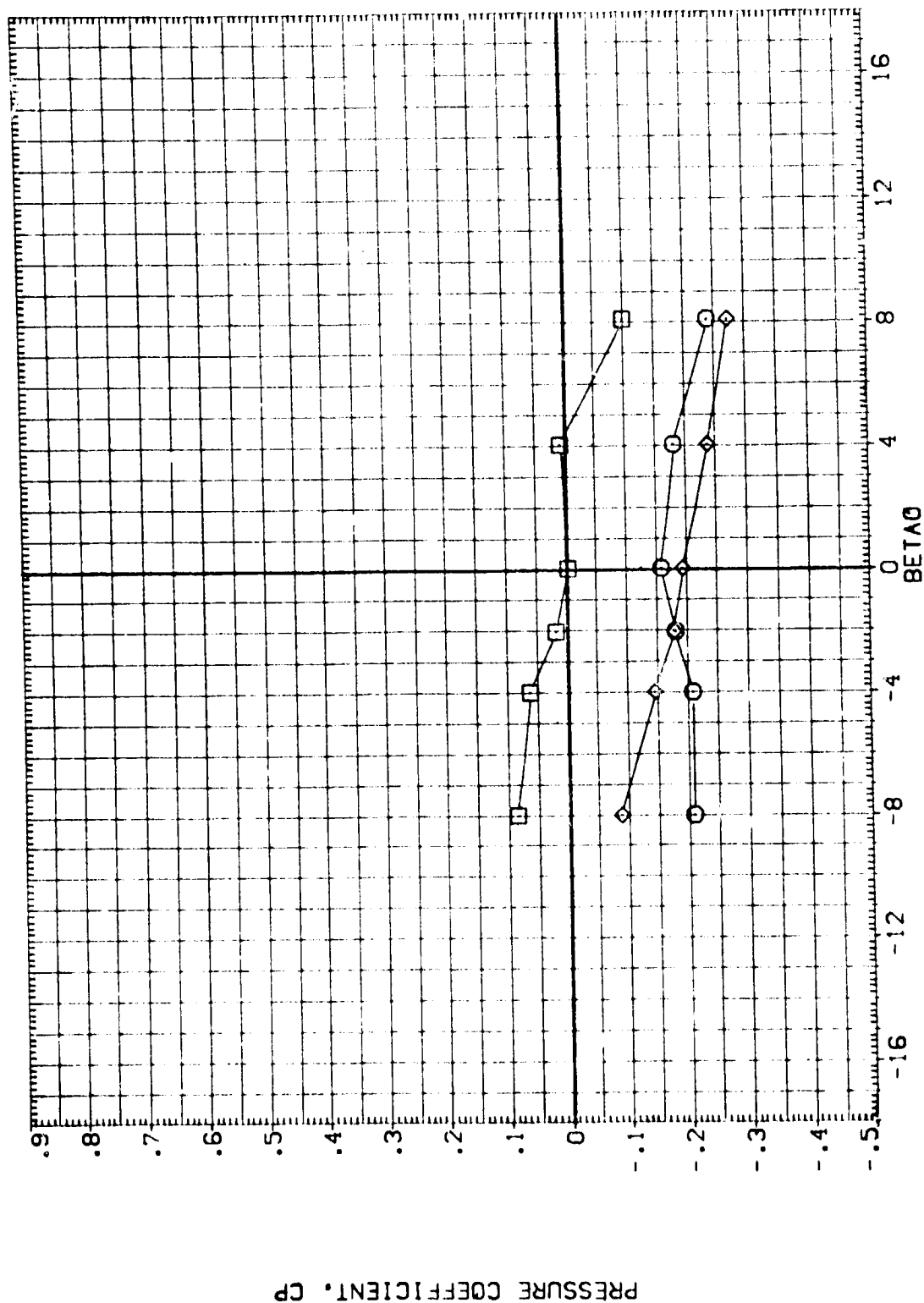


OMS NOZZLE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 QMS NOZZLE (RB1E33)

SYMBOL PHI X/LIN ALPHA0  
 135.000  
 180.000  
 225.000

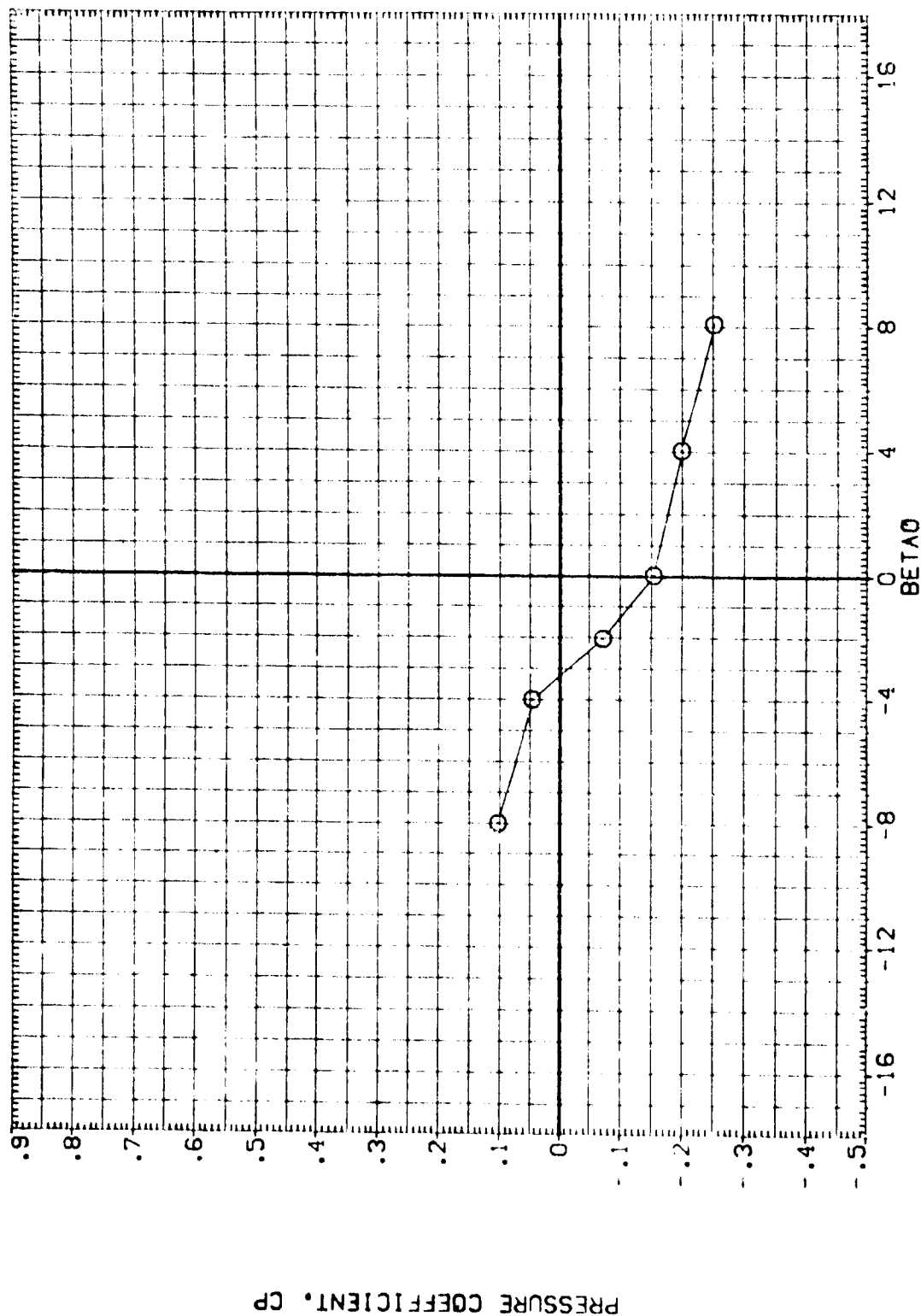
PARAMETRIC VALUES  
 MACH 1.250 ELEVON .000  
 RUDDER .000 SPDBRK .000



QMS NOZZLE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 QMS NOZZLE (RB1E33)

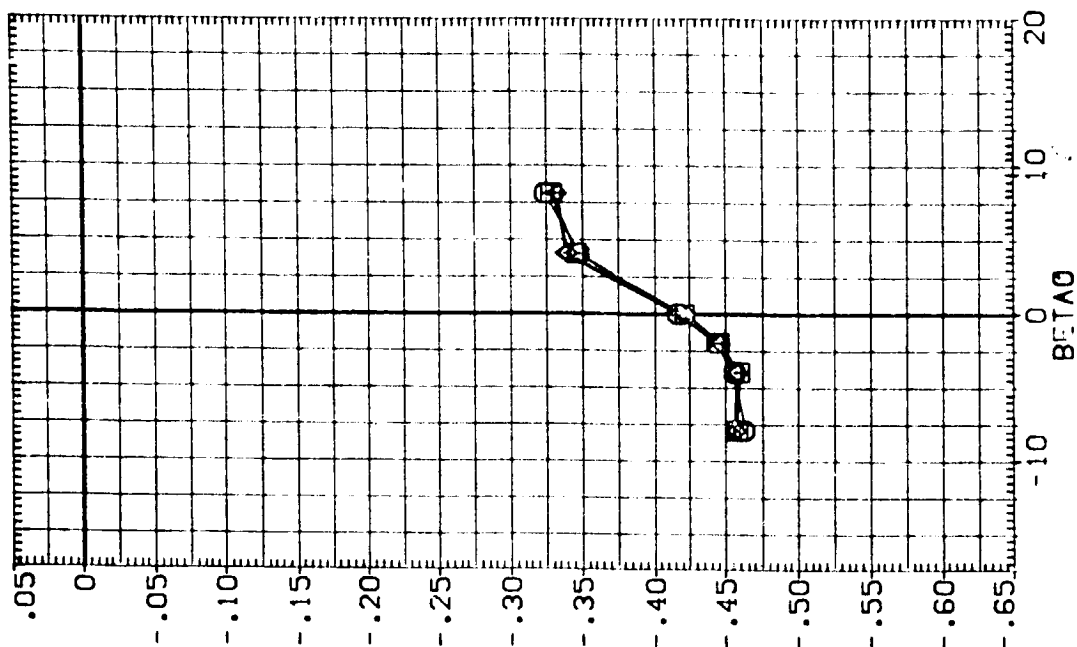
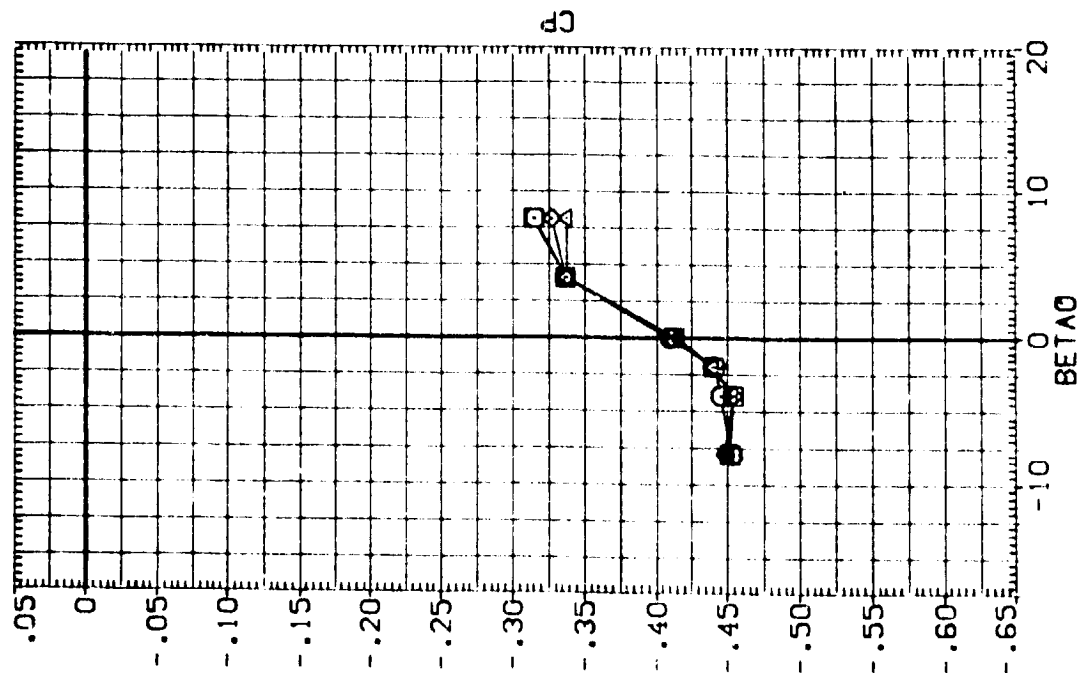
SYMBOL	PHI	X/LNH	ALPHA	MACH	PARAMETRIC VALUES
0	180.000	.400	7.910	RUDDER	1.250 ELEVON .000
					SPOILER .000



QMS NOZZLE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 SRM NOZZLE (RB1X33)

SYMBOL	PHI	X/L	ALPHA	MACH	PARAMETRIC VALUES
○	.000	.948	-8.220	RUDDER	1.250
□	45.000	.979			.000
◇	90.000				.000
△	135.000				.000



SRM BOOSTER BASE PRESSURES



ARC11-716 1A14 01+T12+S12N25+AT10 SRM NOZZLE (RB1X33)

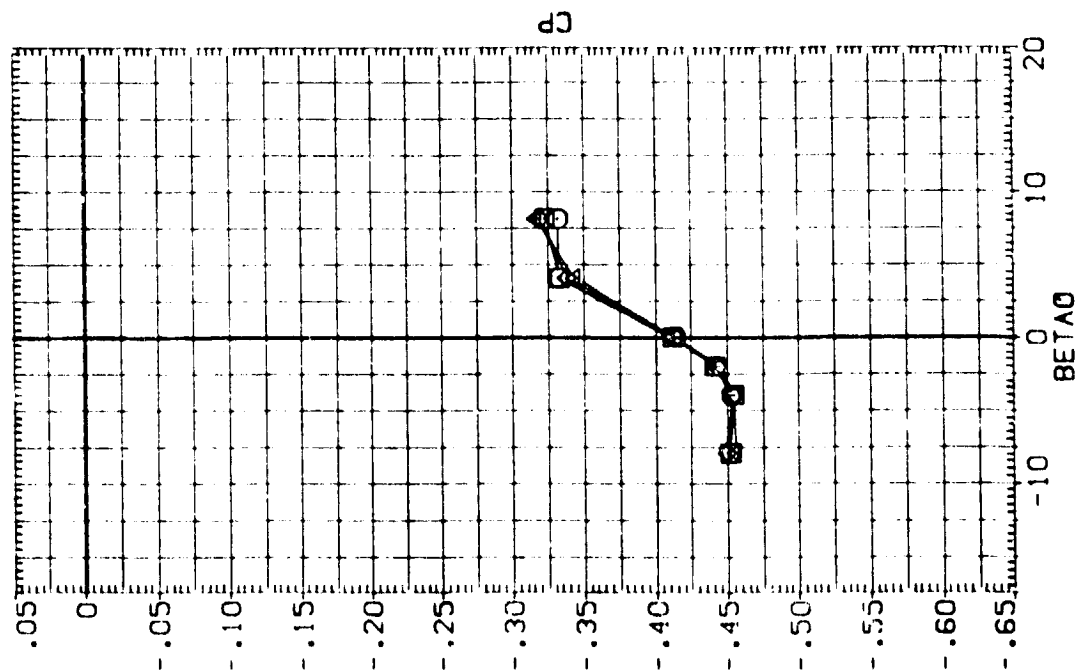
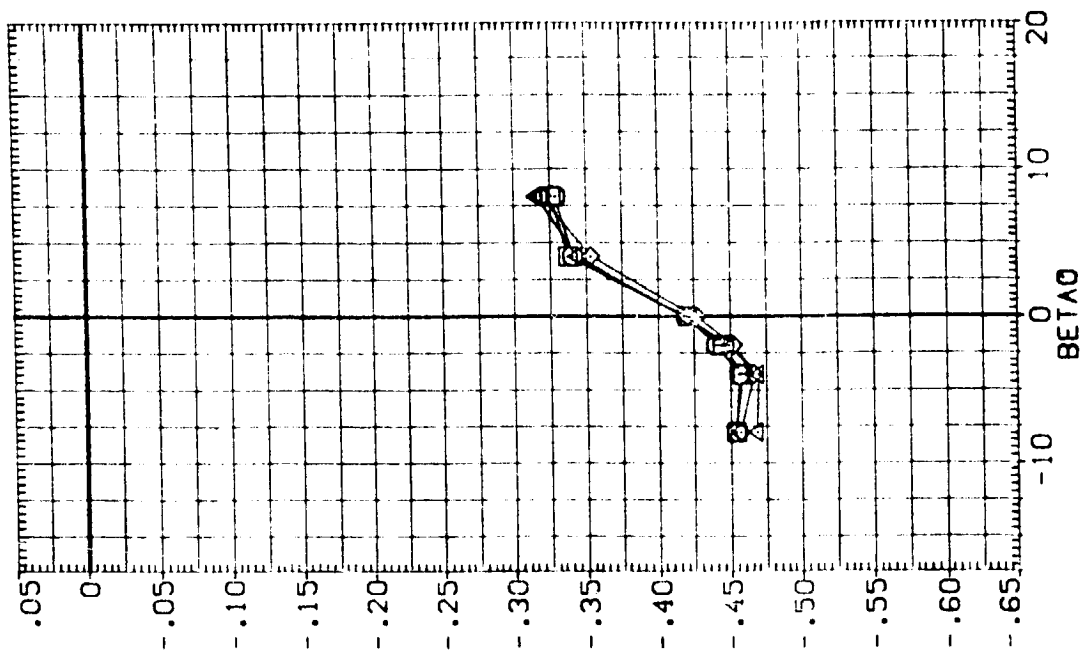
SYMBO

PHI  
180.000  
225.000  
270.000  
315.000

X/L5  
.948  
.979

ALPHA0  
-8.220

PARAMETRIC VALUES  
MACH 1.250  
RUDDER .000  
ELEVON .000  
SPDBRK .000



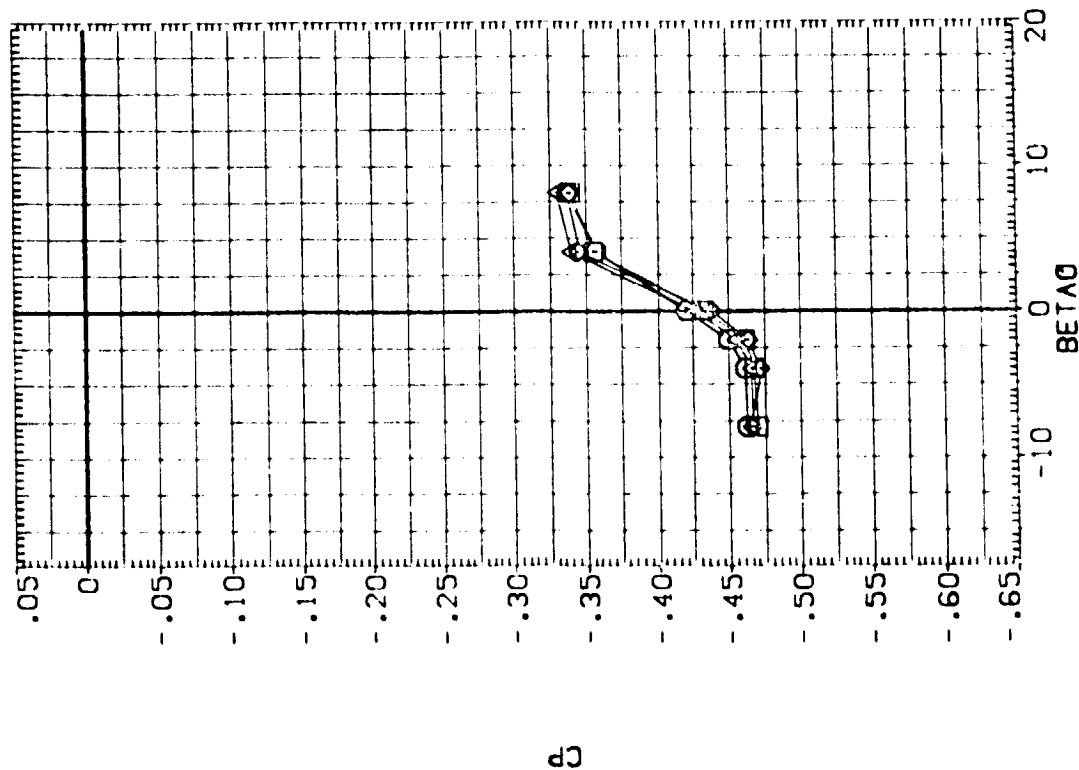
SRM BOOSTER BASE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 SRM NOZZLE

(RB1X33)

PARAMETRIC VALUES  
 MACH 1.250  
 RUDDER .000  
 ELEVON .000  
 SPOBRK .000

SYMBOL PHI X/LS ALPHA  
 O .000 .993 -8.220  
 ◇ 45.000  
 △ 90.000  
 135.000



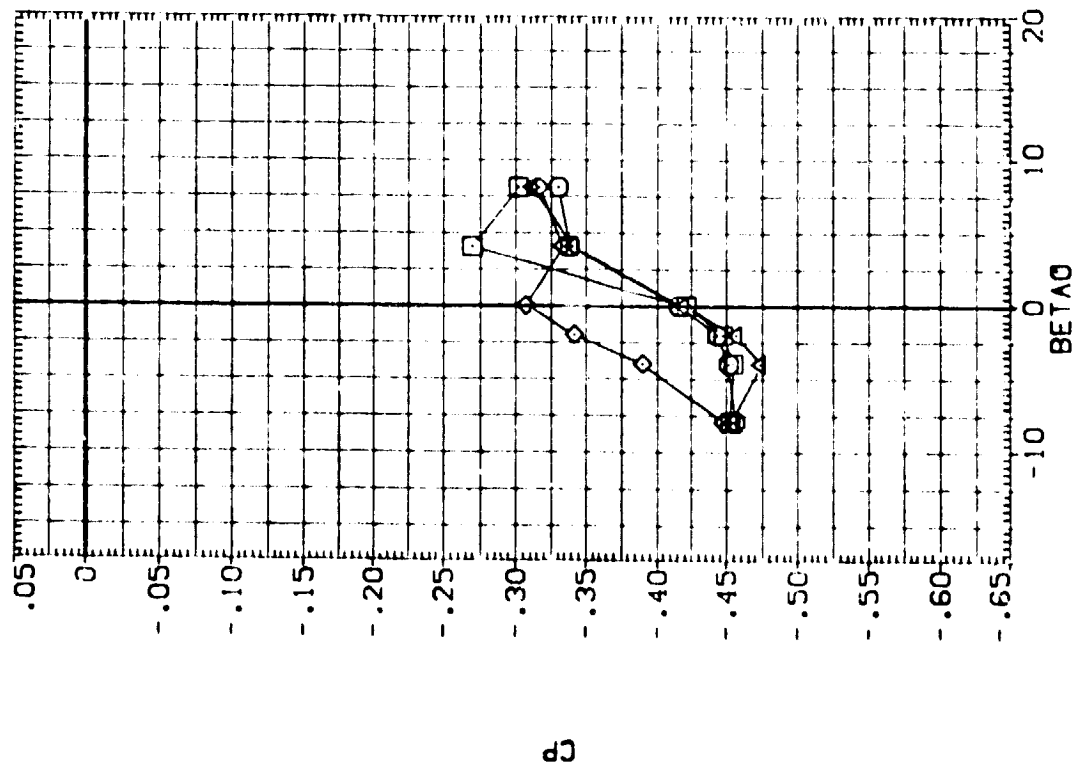
SRM BOOSTER BASE PRESSURES

(R81X33)

ARC11-716 1A14 01+112+S12N25+AT10 SRM NOZZLE

PARAMETRIC VALUES  
MACH 1.250 ELEVON .000  
RUDDER .000 SPOBRK .000

PHI X/LS ALPHA0  
180.000 .993 -8.220  
275.000  
270.000  
315.000

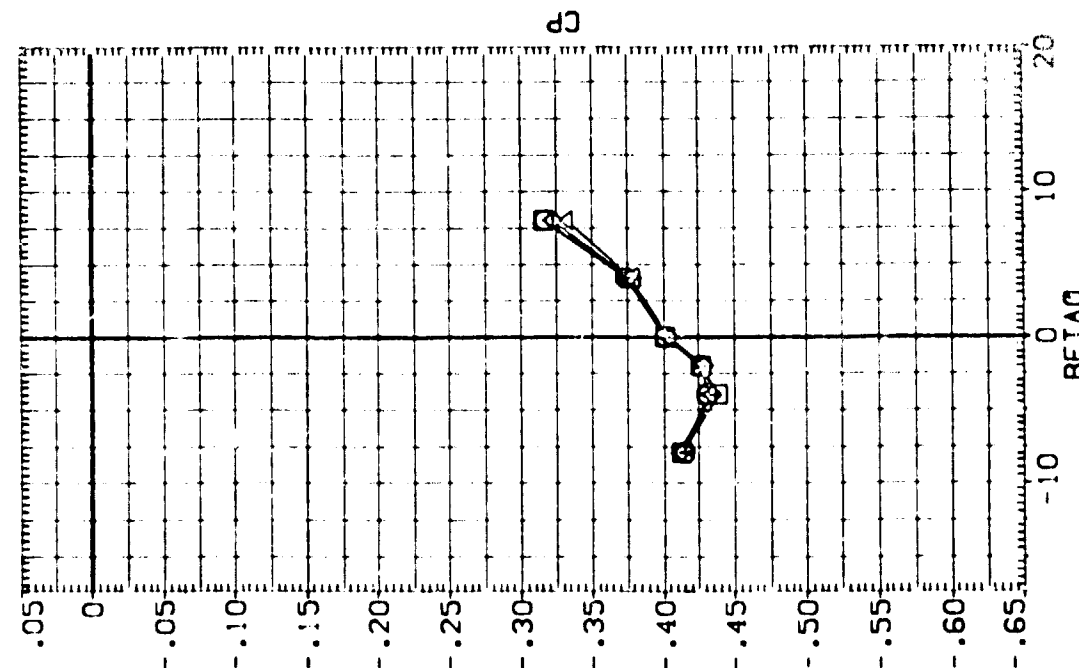
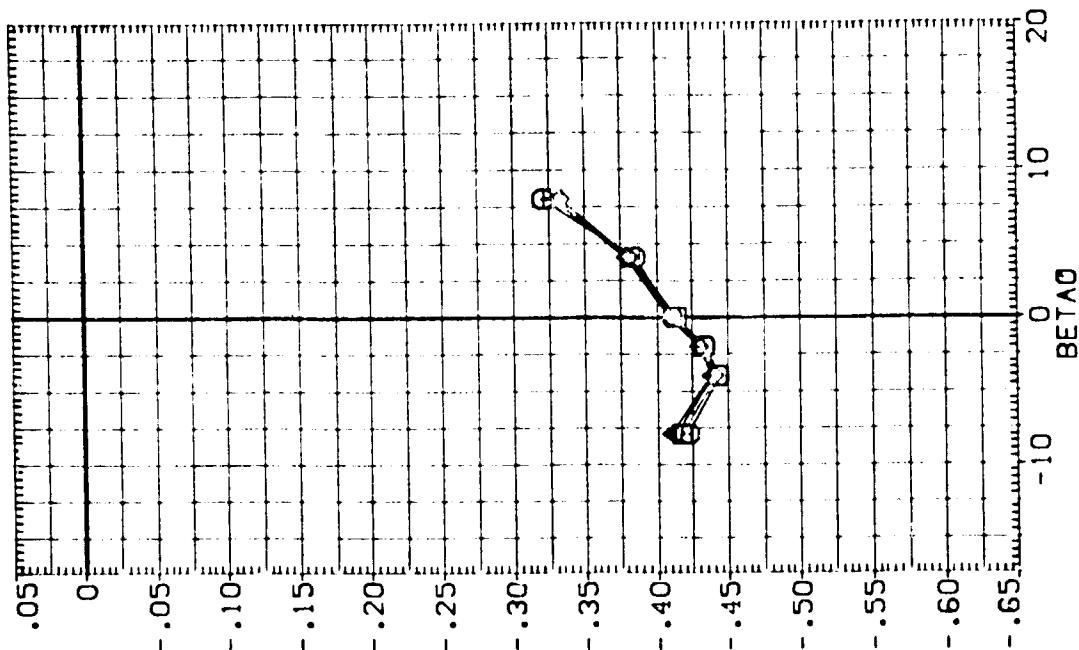


SRM BOOSTER BASE PRESSURES

ARC11-716 1A14 01+T'2+S12N25+AT10 SRM NOZZLE (RB1X33)

PARAMETRIC VALUES  
MACH 1.250 ELEVON .000  
RUDDER .000

SYMBOL P-HI X/L/S ALPHA0  
O .000 .948 -4.200  
◇ 15.000 .979  
△ 90.000  
▽ 135.000



SRM BOOSTER BASE PRESSURES

ARC11-016 IA14 01+112-S12N25+A110 SRM NOZZLE (RB1X33)

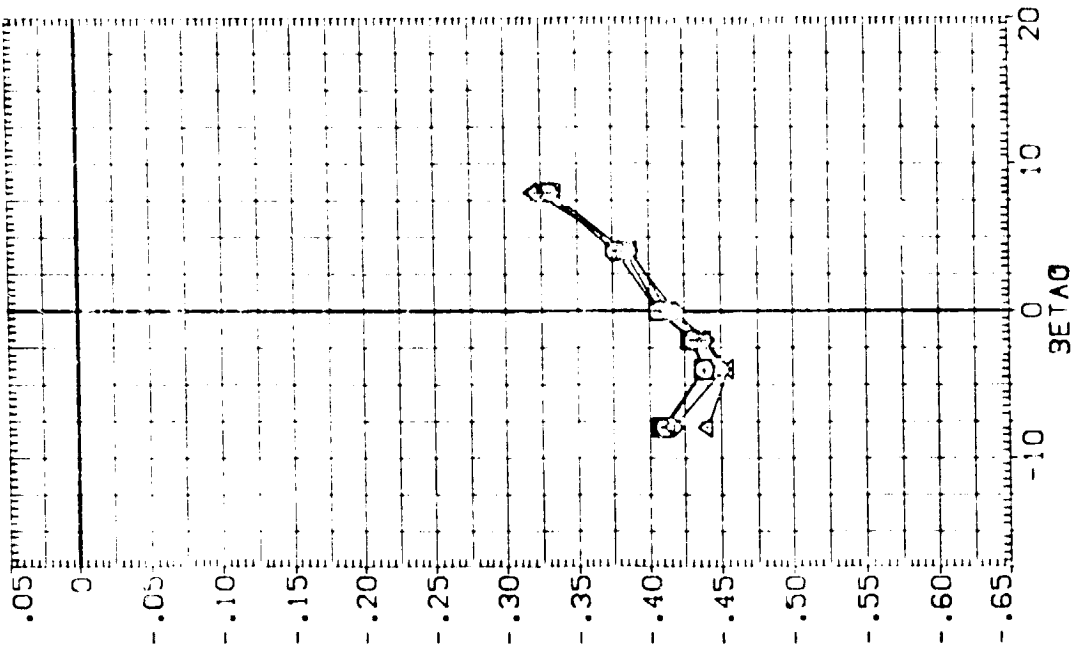
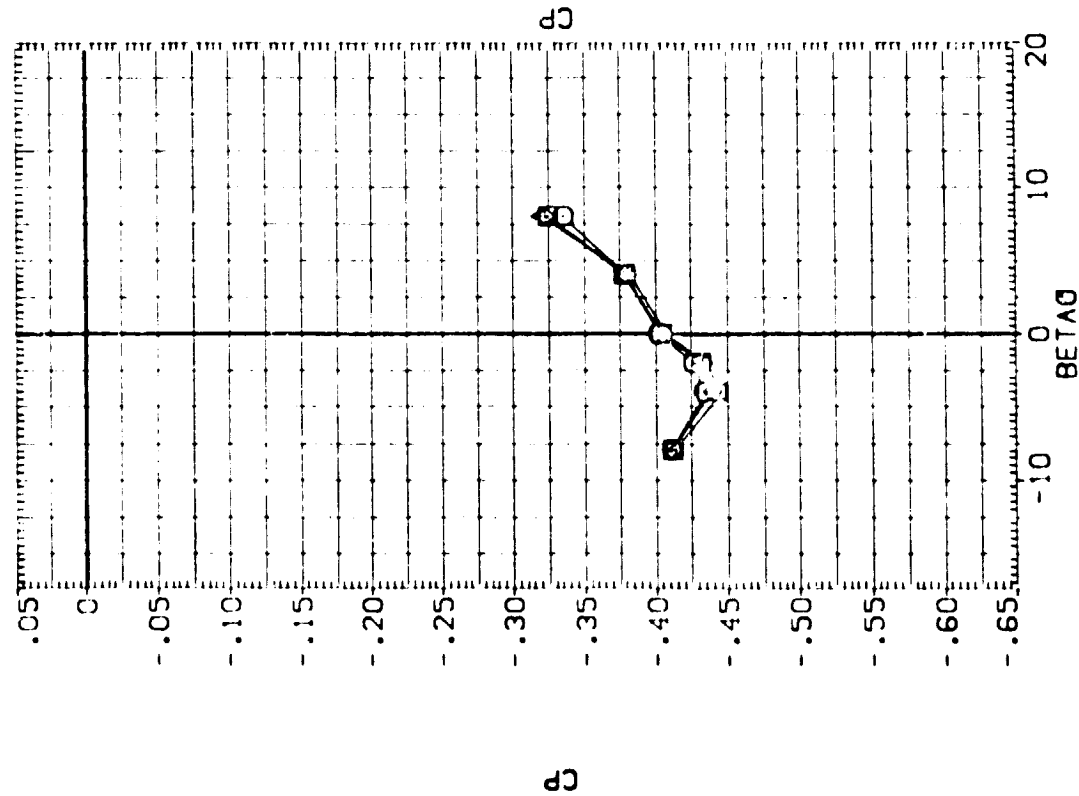
SYMBOL

180.000  
225.000  
270.000  
315.000

X/LS .548  
ALPHA0 -4.200

PARAMETRIC VALUES

MACH 1.250  
ELEVEN .000  
RUDDER .000  
SPCGRM .000



SRM BOOSTER BASE PRESSURES

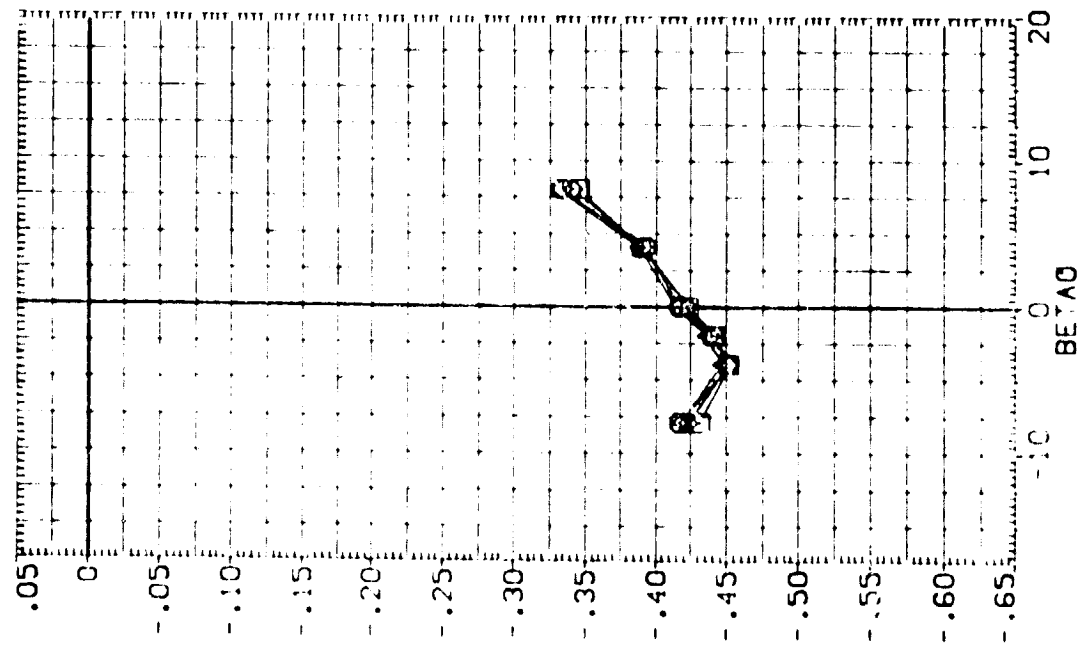
ARC:11-716 :A14 01+112+S12N25+A110 SRM NOZZLE (R31X33)

SYMBOL

PHI .000  
45.000  
90.000  
135.000

X/LS .993  
ALPHA0 -4.200

PARAMETRIC VALUES  
MACH 1.250  
RUDDER .000  
ELEVON .000  
SPDBRK .000



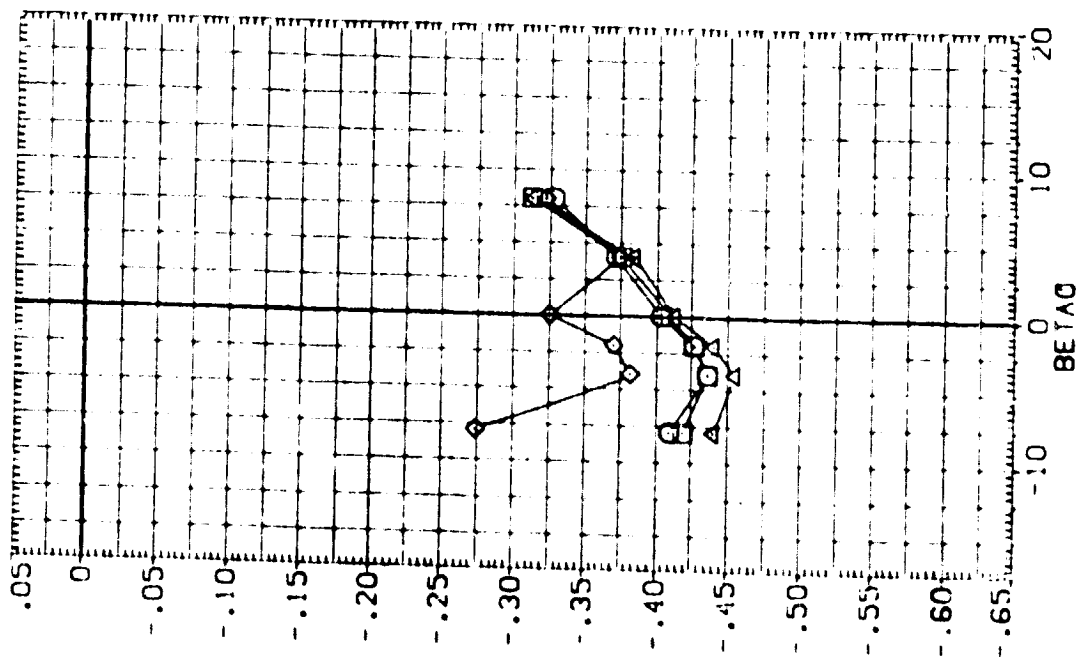
SRM BOOSTER BASE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 SRM NOZZLE

(RB1X33)

SRM NO. P-1 X/L S -P/W  
 0 180.000 .993 -4.200  
 1 275.000  
 2 270.000  
 3 315.000

PARAMETRIC VALUES  
 MACH 1.250 ELEVON .000  
 RUDDER .000 SPOBRK .000



SRM BOOSTER BASE PRESSURES

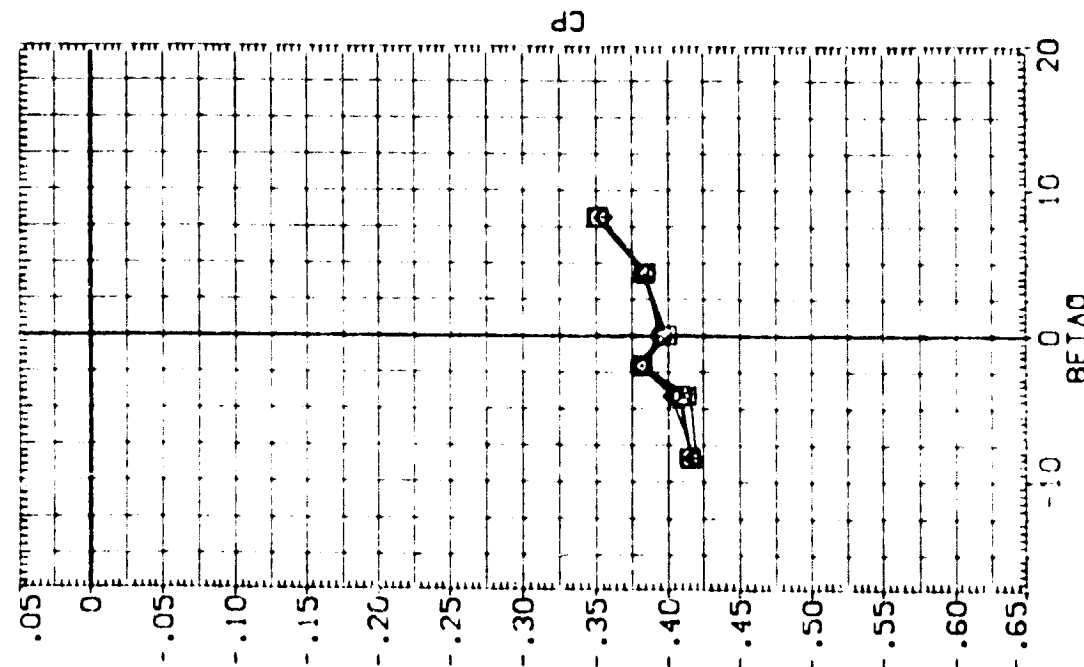
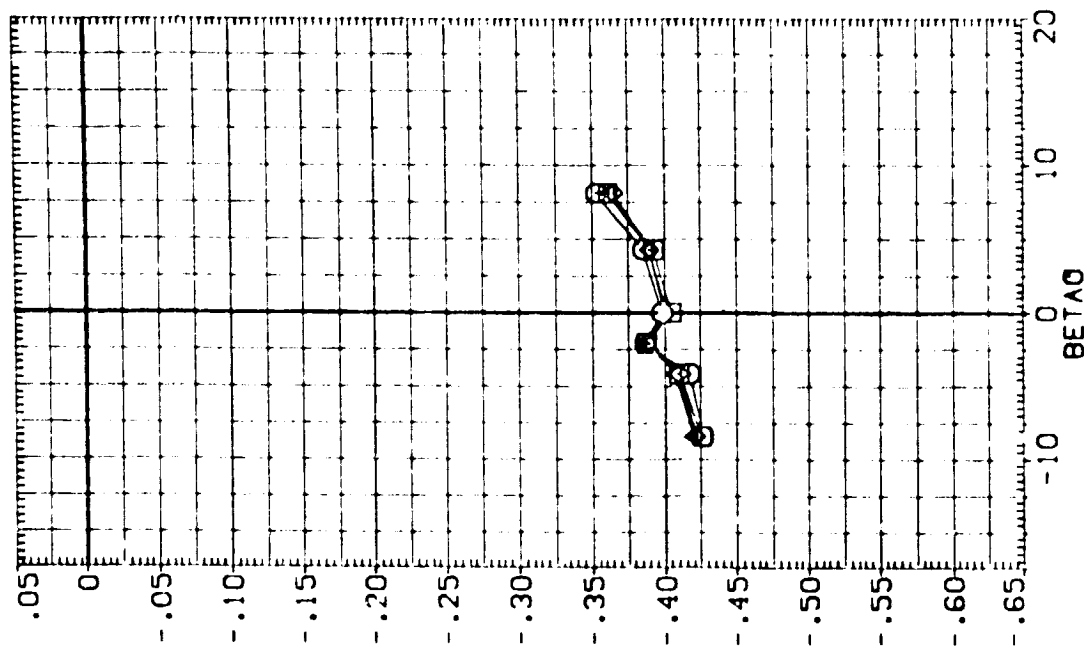
ARC11-716 1A14 01+T12+S12N25+AT10 SRM NOZZLE (R81X33)

PARAMETRIC VALUES  
1.250 ELEVON .000  
.000 SPOBRK .000

1A0H  
RUDDER

PHI .000 X/L5 .948 ALPHA03 -.760  
45.000 .879  
90.000  
135.000

SYMBOL  
O □ △



SRM BOOSTER BASE PRESSURES



ARC11-716 IA14 01+T12+S12N25+AT10 SRM NOZZLE (RB1X33)

SYMBOL

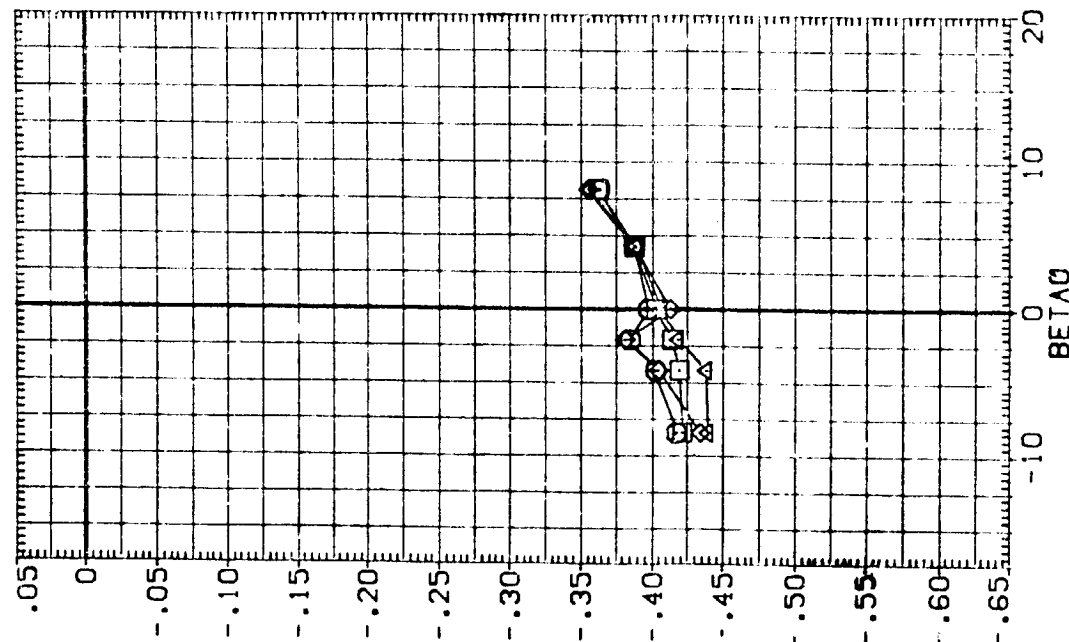
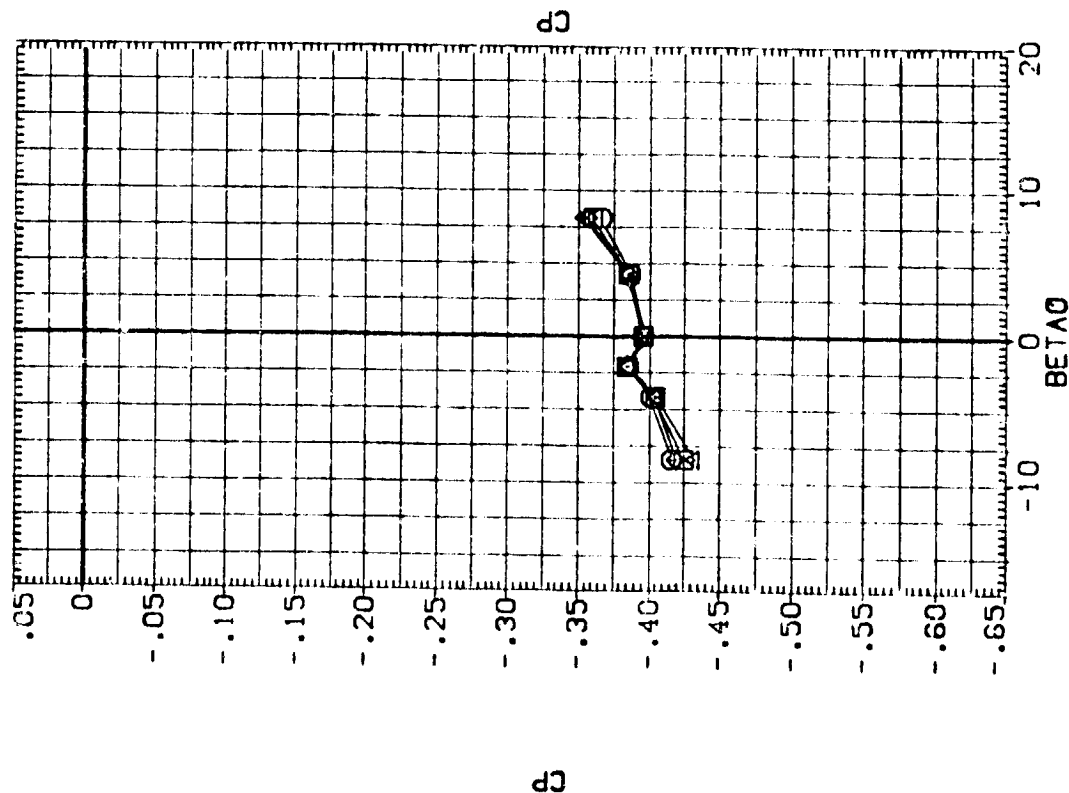
PHI  
180.000  
225.000  
270.000  
315.000

X/LS  
.948  
.979

ALPHA0  
-.760

PARAMETRIC VALUES  
MACH  
RUDDER

1.250  
.000  
ELEVJN  
SPDRK  
.000  
.000



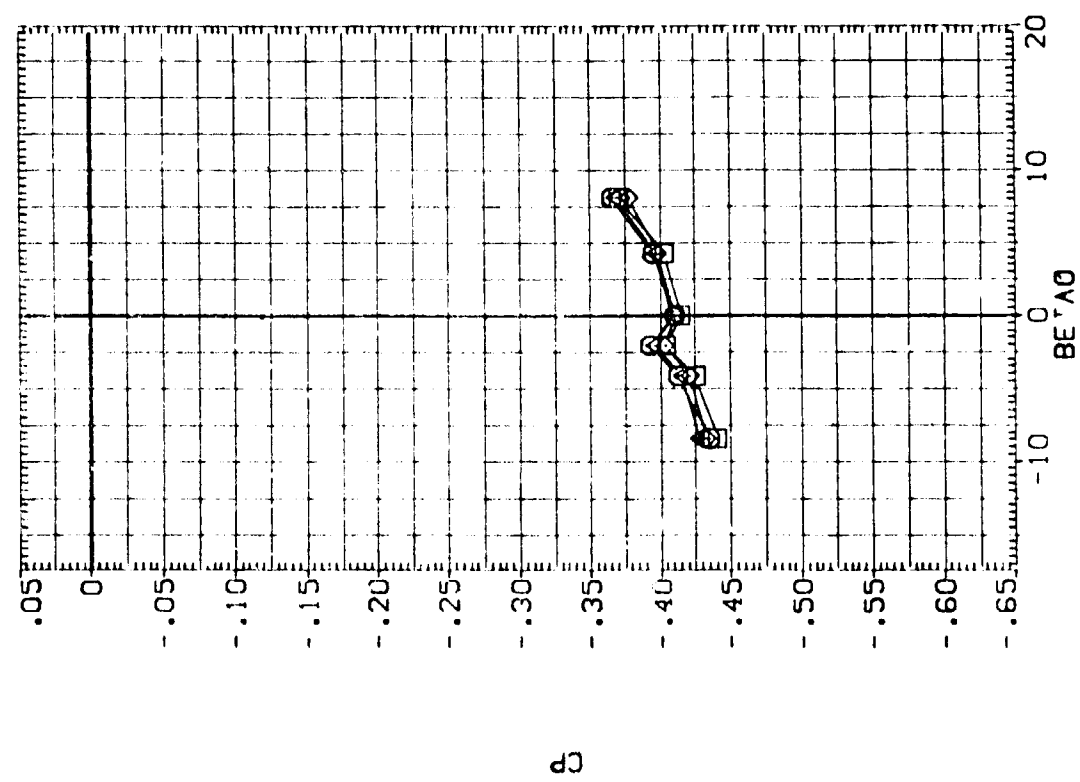
SRM BOOSTER BASE PRESSURES

(RB1X33)

ARC11-716 1A14 01-112+S12N25+AT10 SRM NOZZLE

PARAMETRIC VALUES  
 MACH 1.250  
 RUDDER .000  
 ELEVON .000  
 SPDBRK .000

SYMBOL PHI X/Z/S ALPHA0  
 0 0.000 .993 -.750  
 45 0.000  
 90 0.000  
 135 0.000



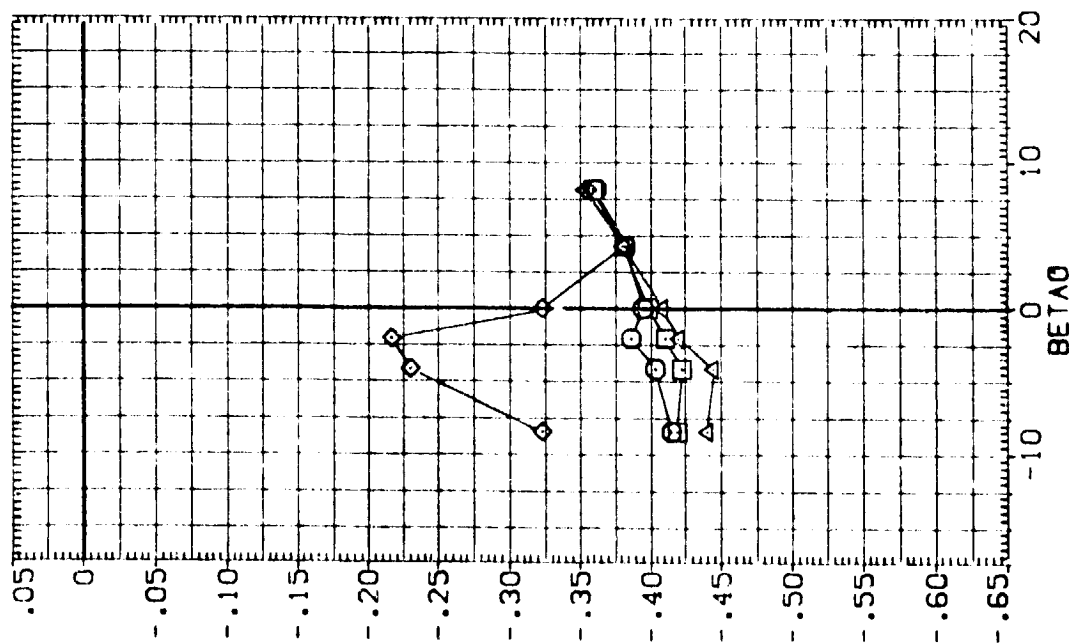
SRM BOOSTER BASE PRESSURES

ARC11-716 IA14 01+T12+S12N25+AT10 SRM NOZZLE

(RB1X33)

PARAMETRIC VALUES  
 MACH 1.250 ELEVON .000  
 RUDDER .000 SPOILER .000

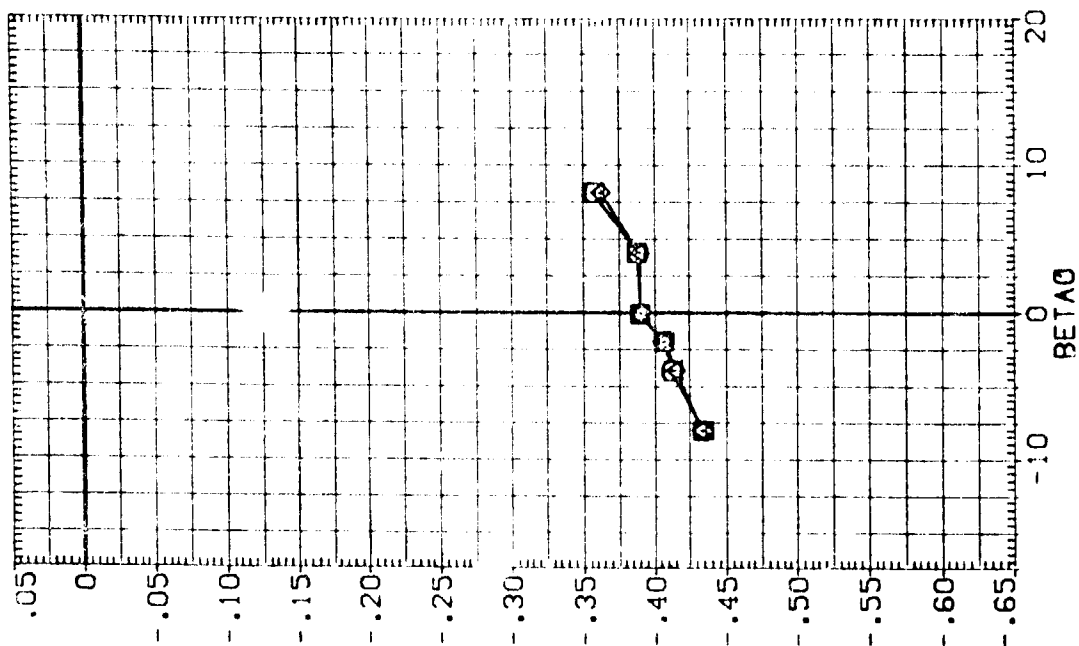
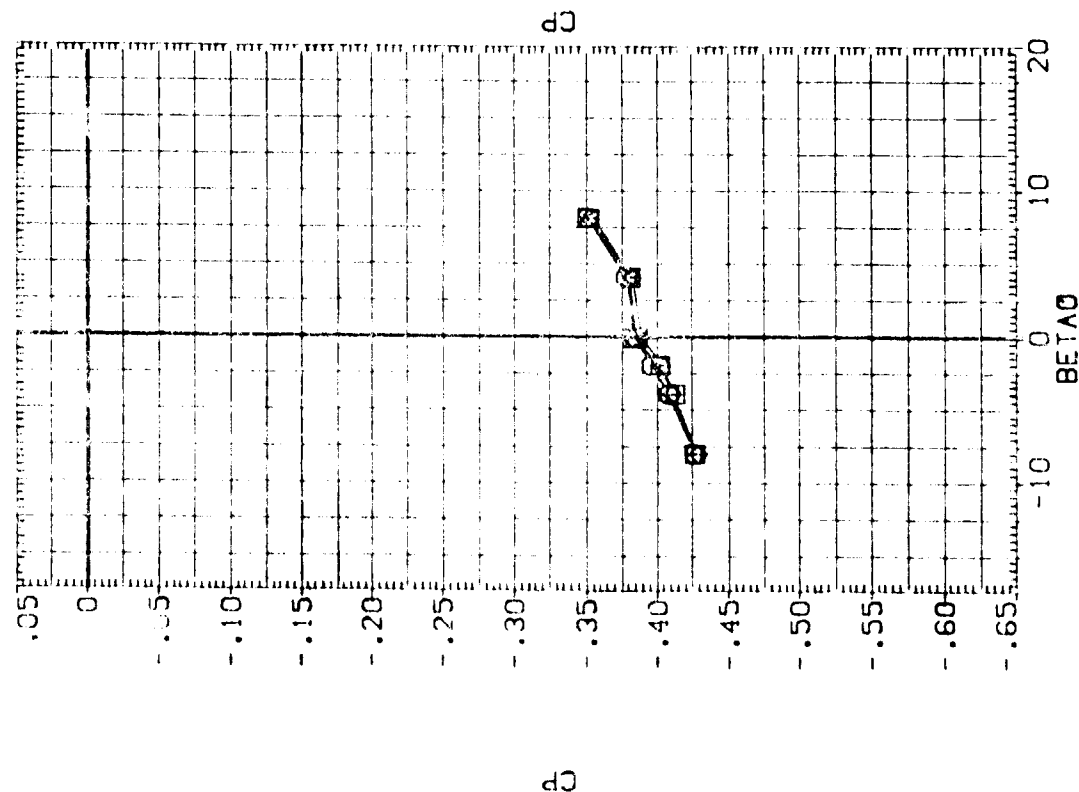
SYMBOL PHI X/L S ALPHA  
 180.000 .993 -.760  
 225.000  
 270.000  
 315.000



SRM BOOSTER BASE PRESSURES

ARC11-716 1414 01+112+S12N25+AT10 SRM NOZZLE (RB1X33)

SYMBOL	Phi	X/L	ALPHA	MACH	ELEV	SPD
○	.000	.948	4.30L	RUDDER	1.250	.000
□	45.000	.979			.000	.000
◇	50.000					
△	135.000					



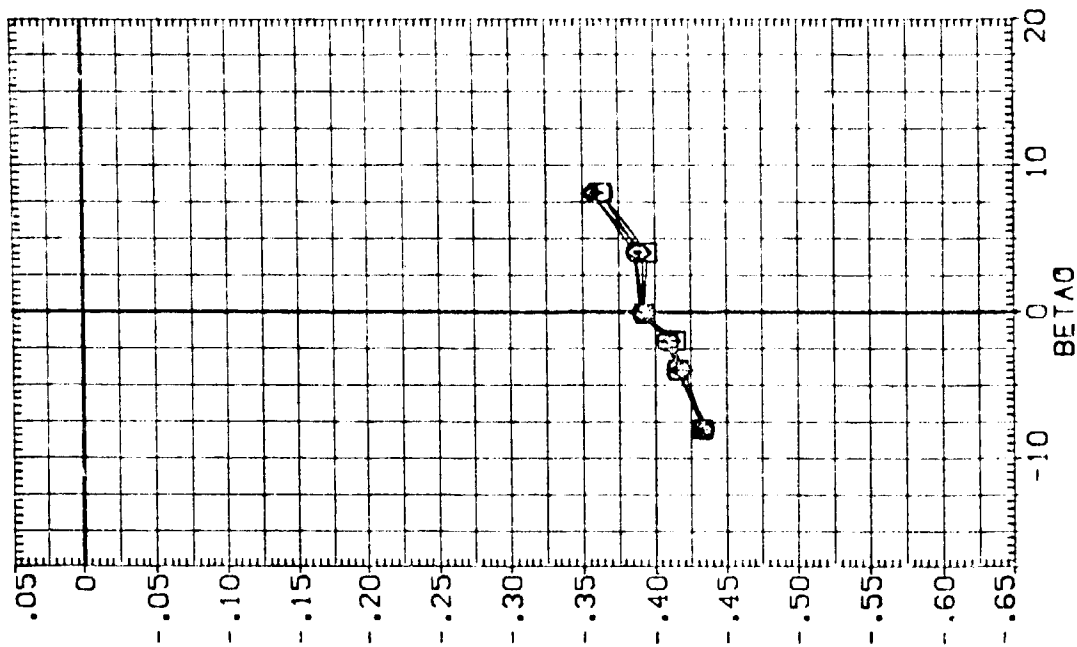
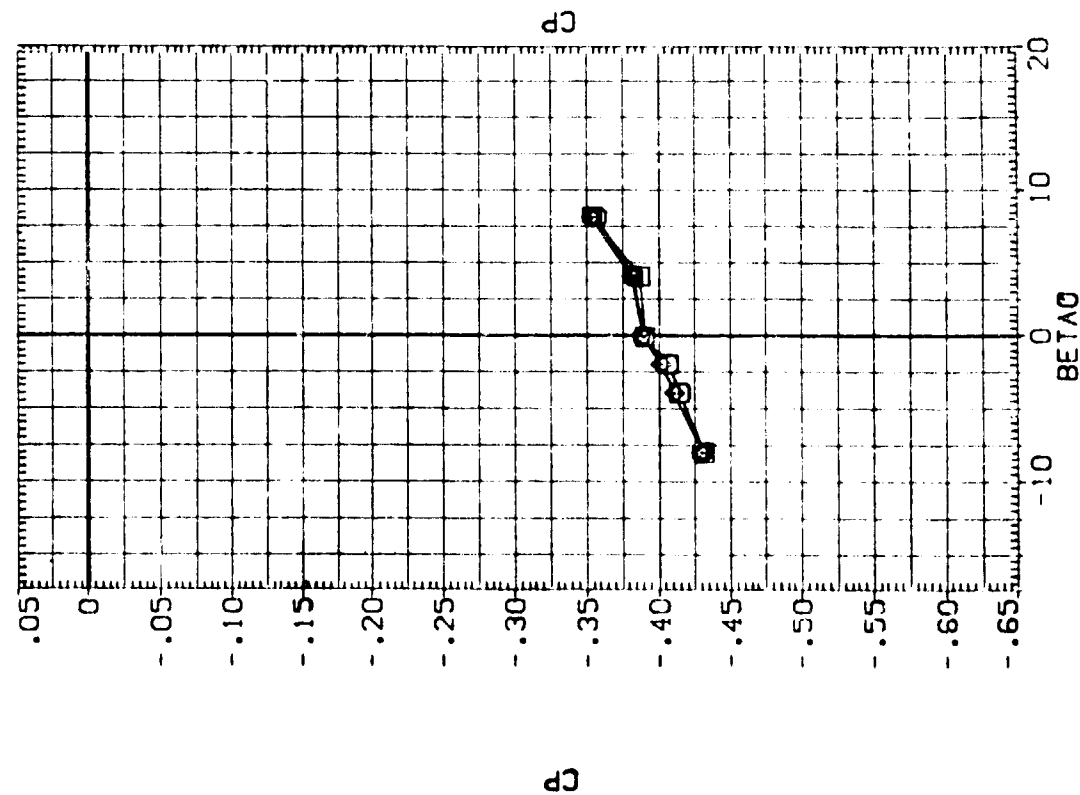
SRM BOOSTER BASE PRESSURES

ARC11-716 1A14 01+112+S12N25+AT10 SRM NOZZLE (RB1X33)

SYMBOL

PHI	X/LS	ALPHA
180.000	.948	4.300
225.000	.579	
270.000		
315.000		

MACH	ELEVON	SPDR
1.250	.000	.000
RUDDER		



SRM BOOSTER BASE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 SRM NOZZLE

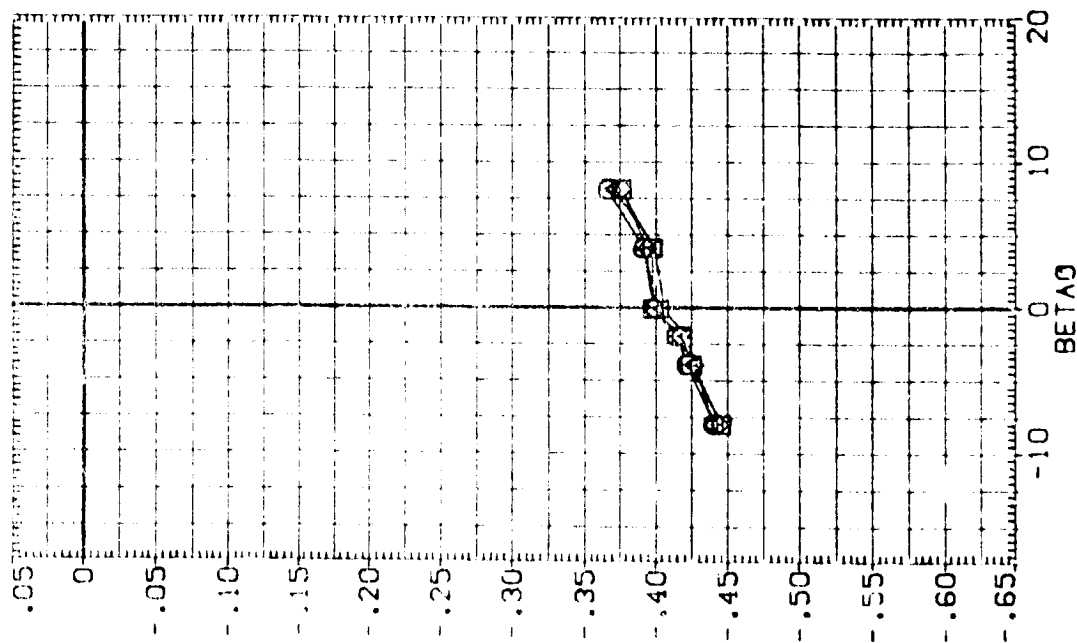
(RB1X33)

SYMBOL  
 O □ ◇ △

PHI .000  
 45.000  
 90.000  
 135.000

X/LS .993  
 ALPHA0 4.300

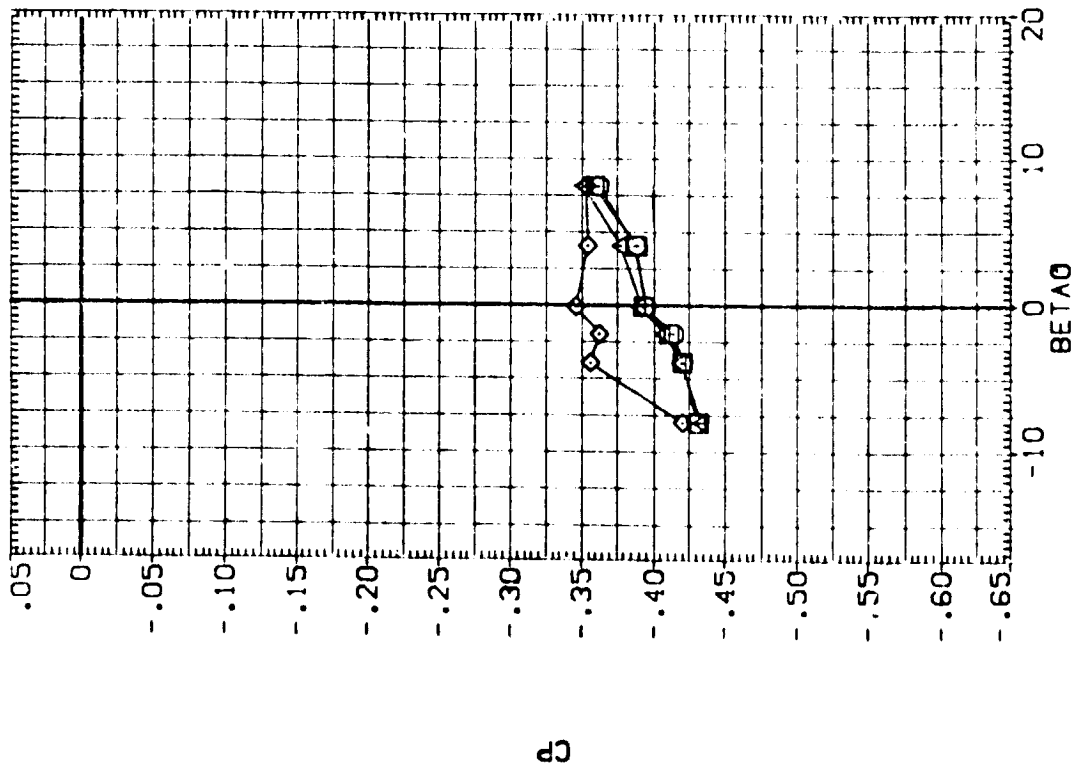
PARAMETRIC VALUES  
 MACH 1.250  
 RUDDER .000  
 ELEVON .000  
 SPDBK .000



SRM BOOSTER BASE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 SRM NOZZLE (RB1X33)

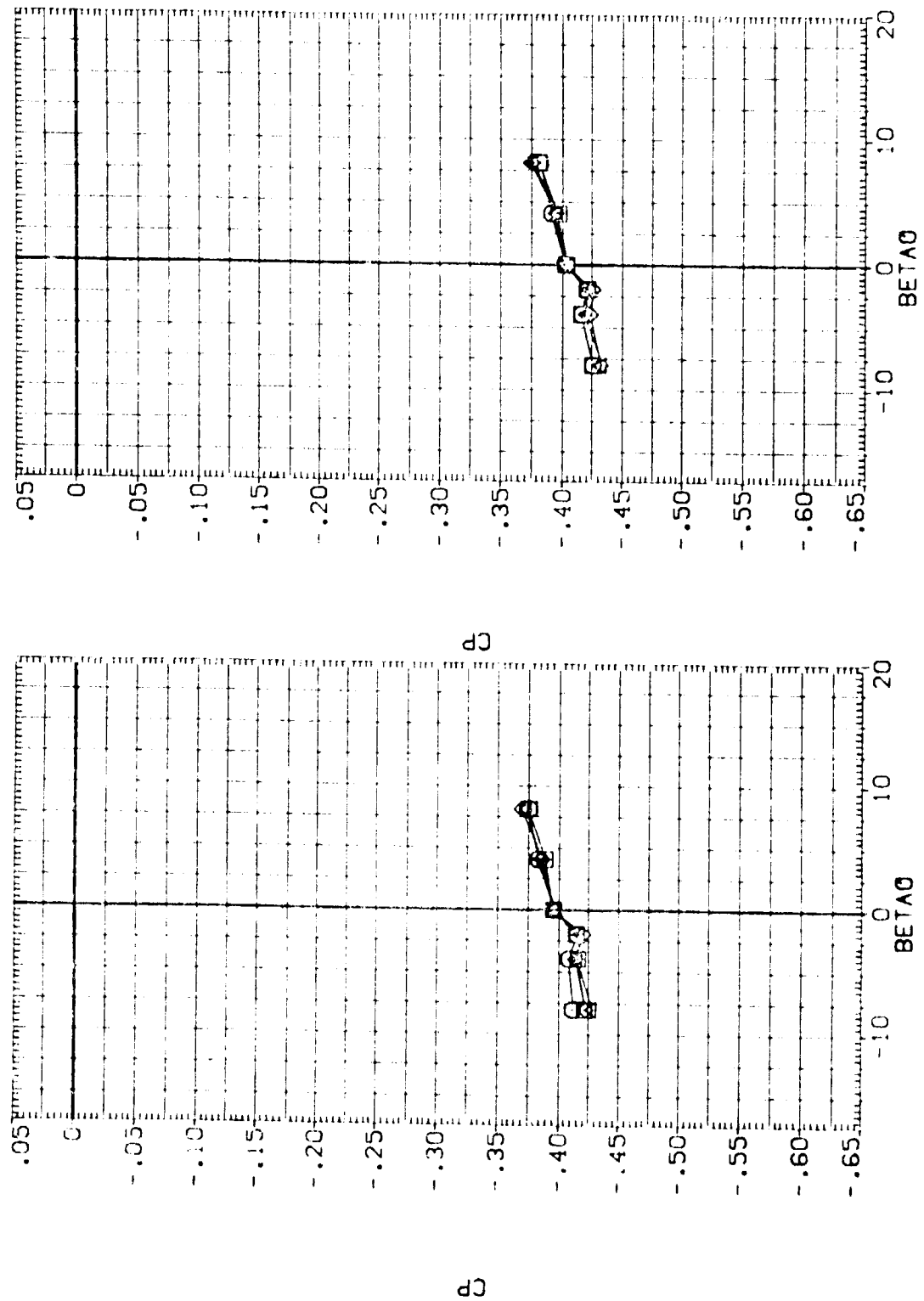
SYMBOL	PHI	X/LS	ALPHA0	PARAMETRIC VALUES
○	180.000	.993	4.300	MACH
□	225.000			RUDDER
◇	270.000			1.250
△	315.000			ELEVON
				.000
				SPDRBK
				.000



SRM BOOSTER BASE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 SRM NOZZLE (RB1X33)

SYMBOL	PHI	X/L	ALPHA	PARAMETRIC VALUES		
				MACH	ELEVON	SPDRK
□	.000	.948	7.910	.000	.000	.000
◇	45.000	.979				
△	90.000					
	135.000					



SRM BOOSTER BASE PRESSURES



ARC1:-716 1A14 01+T12+S12N25+AT10 SRM NOZZLE (RB1X33)

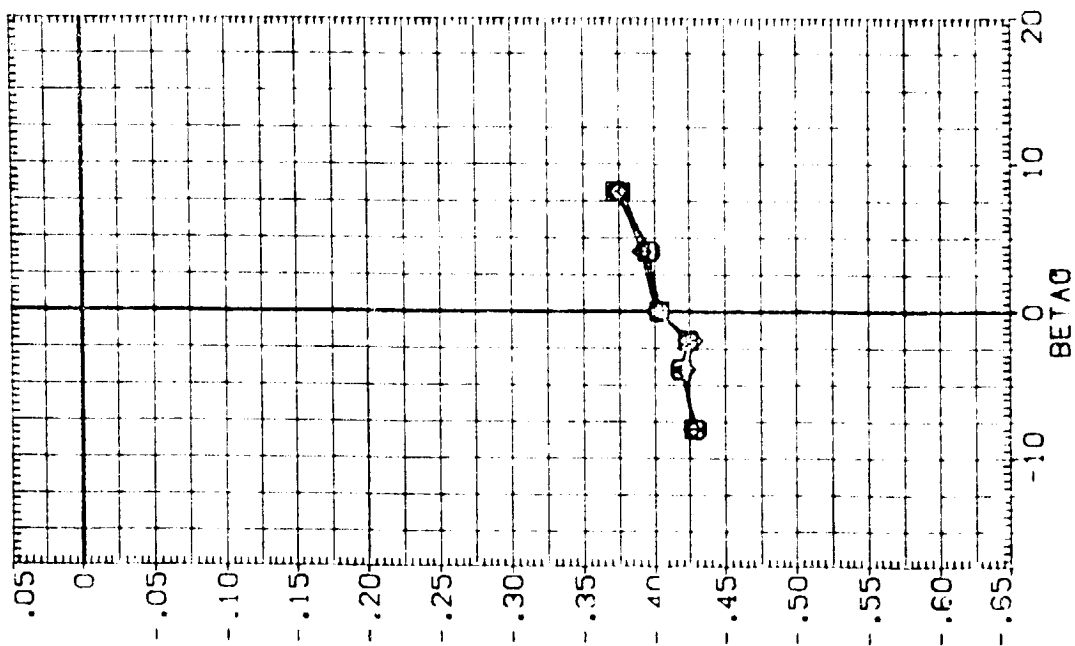
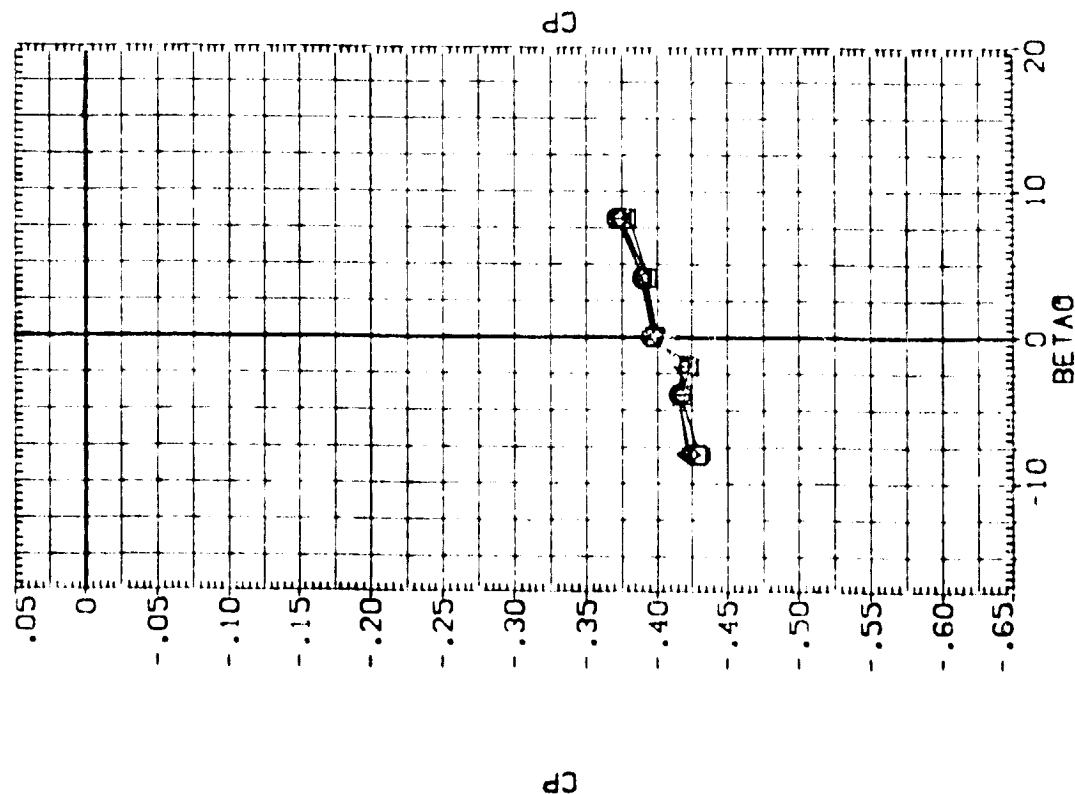
SYMBOL

PHI  
180.000  
225.000  
270.000  
315.000

X/LS  
.948  
.979

ALPHA0  
7.910

PARAMETRIC VALUES  
MACH 1.250  
ELEVON .000  
RUDDER .000  
SPDRK .000



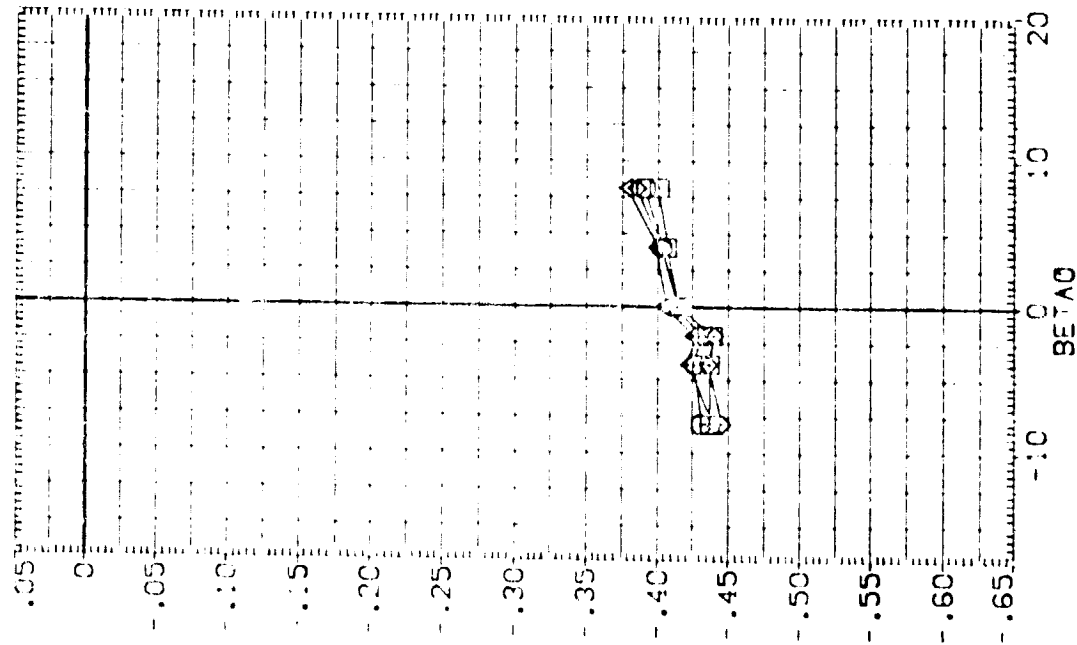
SRM BOOSTER BASE PRESSURES

(RB1X33)

ARC11-016 1A14 01+T12+S12N25+AT10 SRM NOZZLE

PARAMETRIC VALUES  
 MAC- 1.250 ELEVON .000  
 RUDDER .000 SPOBRK .000

SYMBOL PHI K/L/S ALPH-AG  
 0 .000 .993 .910  
 1 45.000  
 2 50.000  
 3 135.000



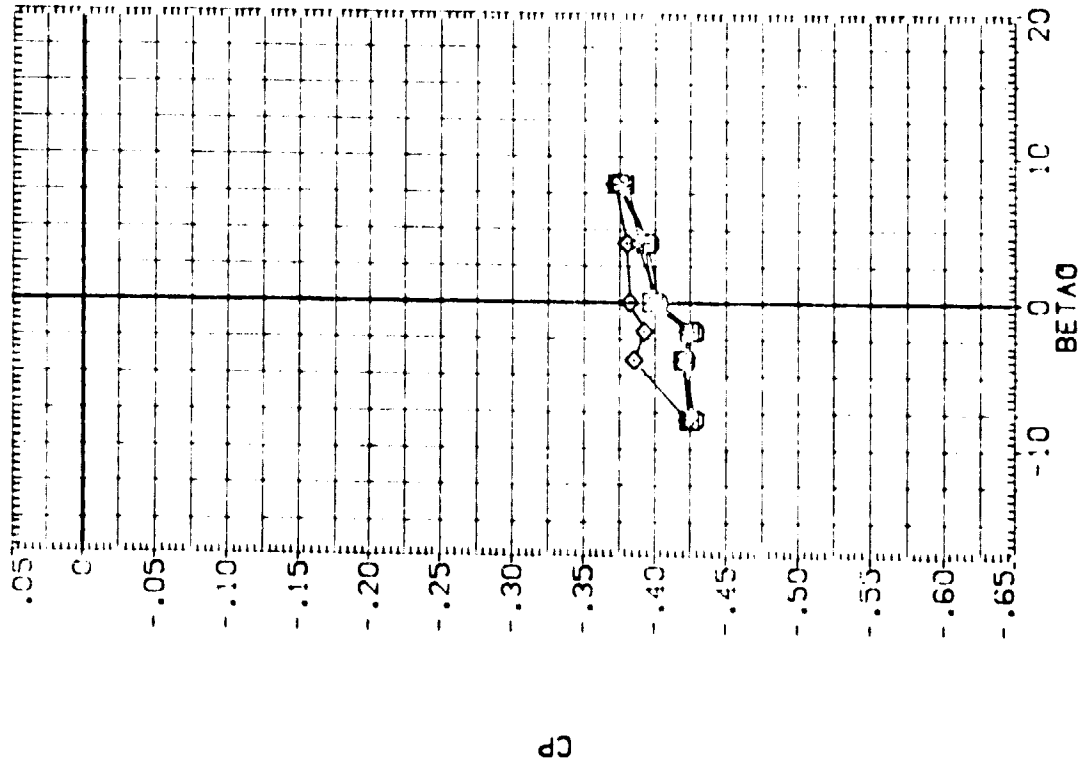
SRM BOOSTER BASE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 SRM NOZZLE

(RB1X33)

PARAMETRIC VALUES  
MACH 1.250 ELEVON .000  
RUDDER .000 SPOILER .000

SYMBOL PHI X/LS ALPHA0  
O 180.000 .993 7.910  
◇ 225.000  
△ 270.000  
▲ 315.000

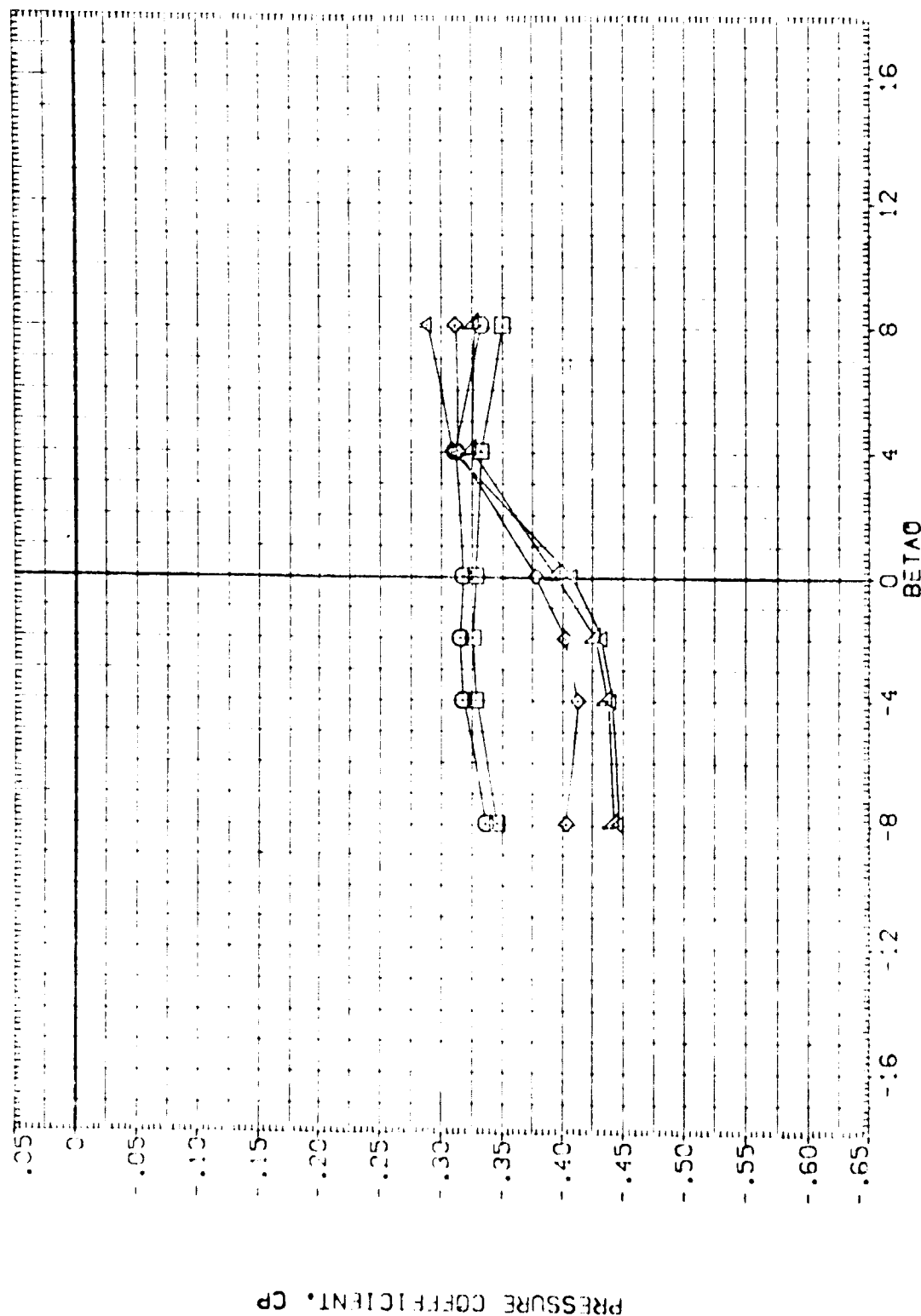


SRM BOOSTER BASE PRESSURES

ARC11-716 1A14 C1+112+S12N25+AT10 ET + SRM BASE (RB1Y33)

PARAMETRIC VALUES  
MACH 1.250 ELEVON .000  
RUDDER .000 SPOILER .000

SYMBOL TAP NO ALPHA0  
501.000 .000 -8.220  
502.000  
601.000  
602.000  
603.000

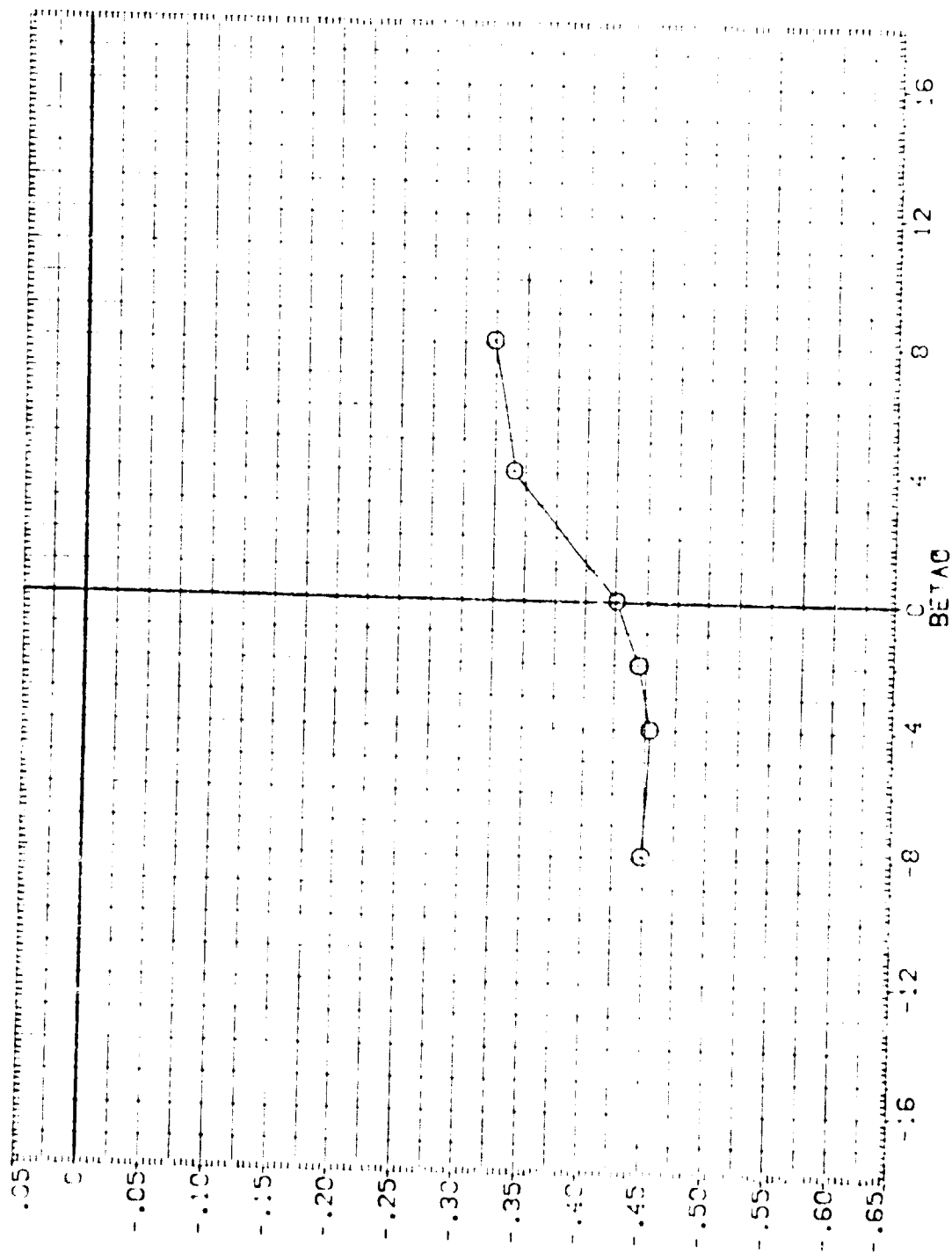


EXTERNAL TANK BASE PRESSURES

ARC11-7:6 1A14 01+T12+S12N25+AT10 ET + SRM BASE (RBIY33)

SYMBOL TAP NO 604.000 ALFAO -8.220

PARAMETRIC VALUES  
MACM 1.250 ELEVON .000  
RUDDER .000 SP/BRK .000



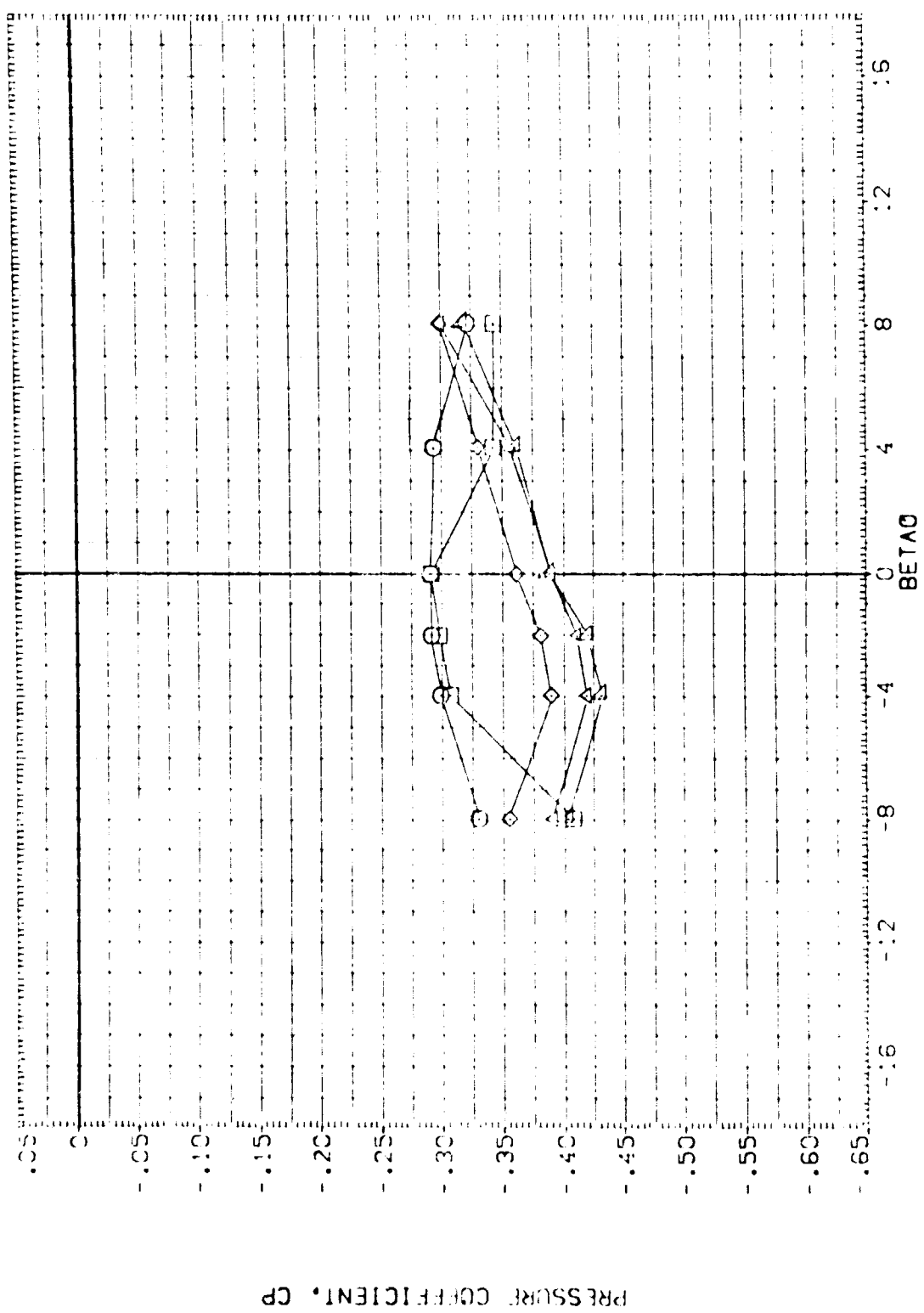
EXTERNAL TANK BASE PRESSURES

ARC: 11.716 1414 01.712+9.2+25+AT10 ET + SRM BASE (PB1Y33)

PARAMETRIC VALUES  
 MACH 1.250  
 ELEVEN 1.000  
 RUDDER .000

TAP NO  
 501.000  
 502.000  
 901.000  
 802.000  
 803.000

SY-80  
 0110  
 1111



EXTERNAL TANK BASE PRESSURES

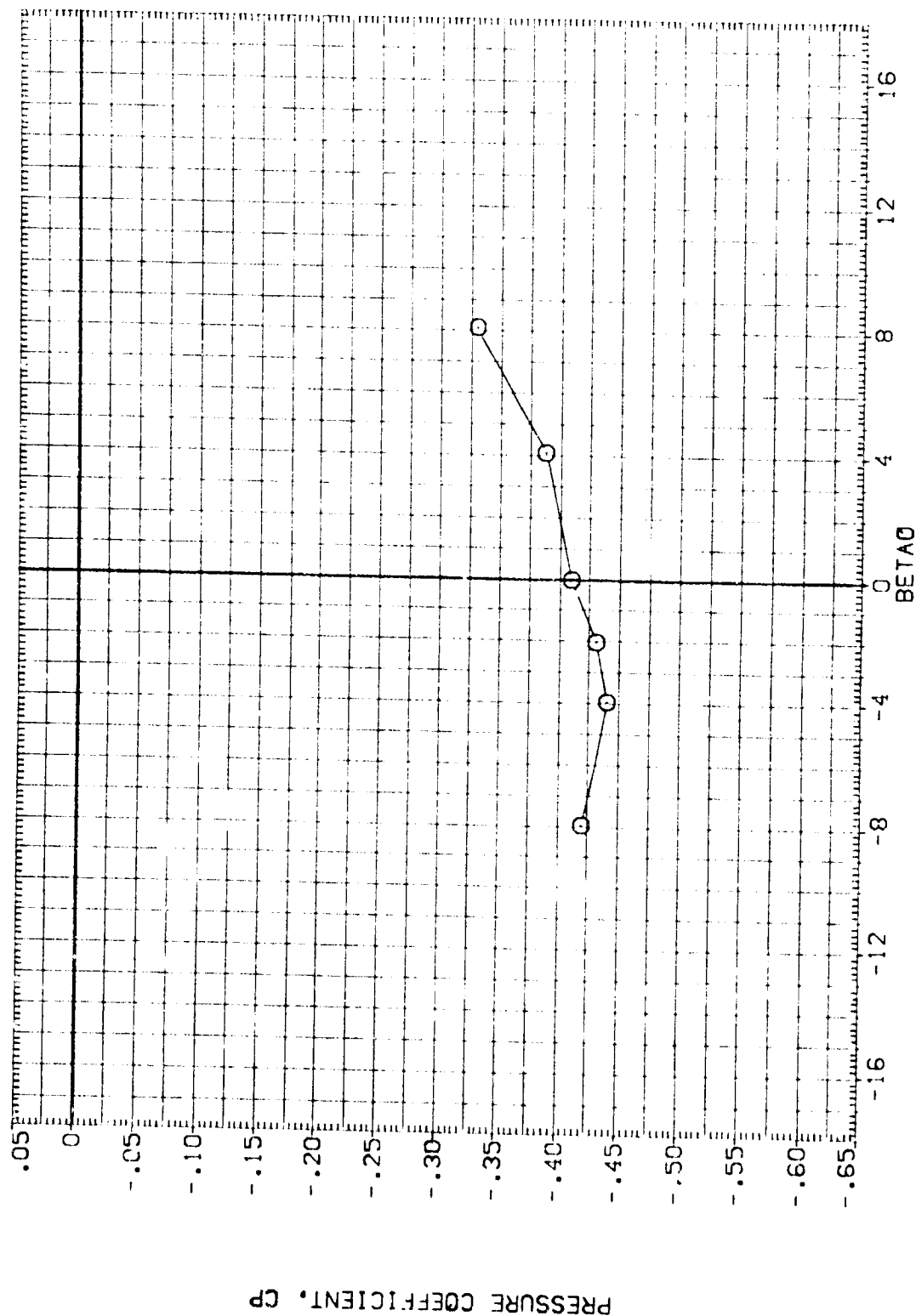
ARC11-716 1A14 01+T12+S12N25+AT10 ET + SRM BASE (RB1Y33)

SYMBOL TAP NO  
O 804.000

ALPHA  
-4.200

.000

PARAMETRIC VALUES  
MACH 1.250  
RUDDER .000  
ELEVON .000  
SPDRK .000



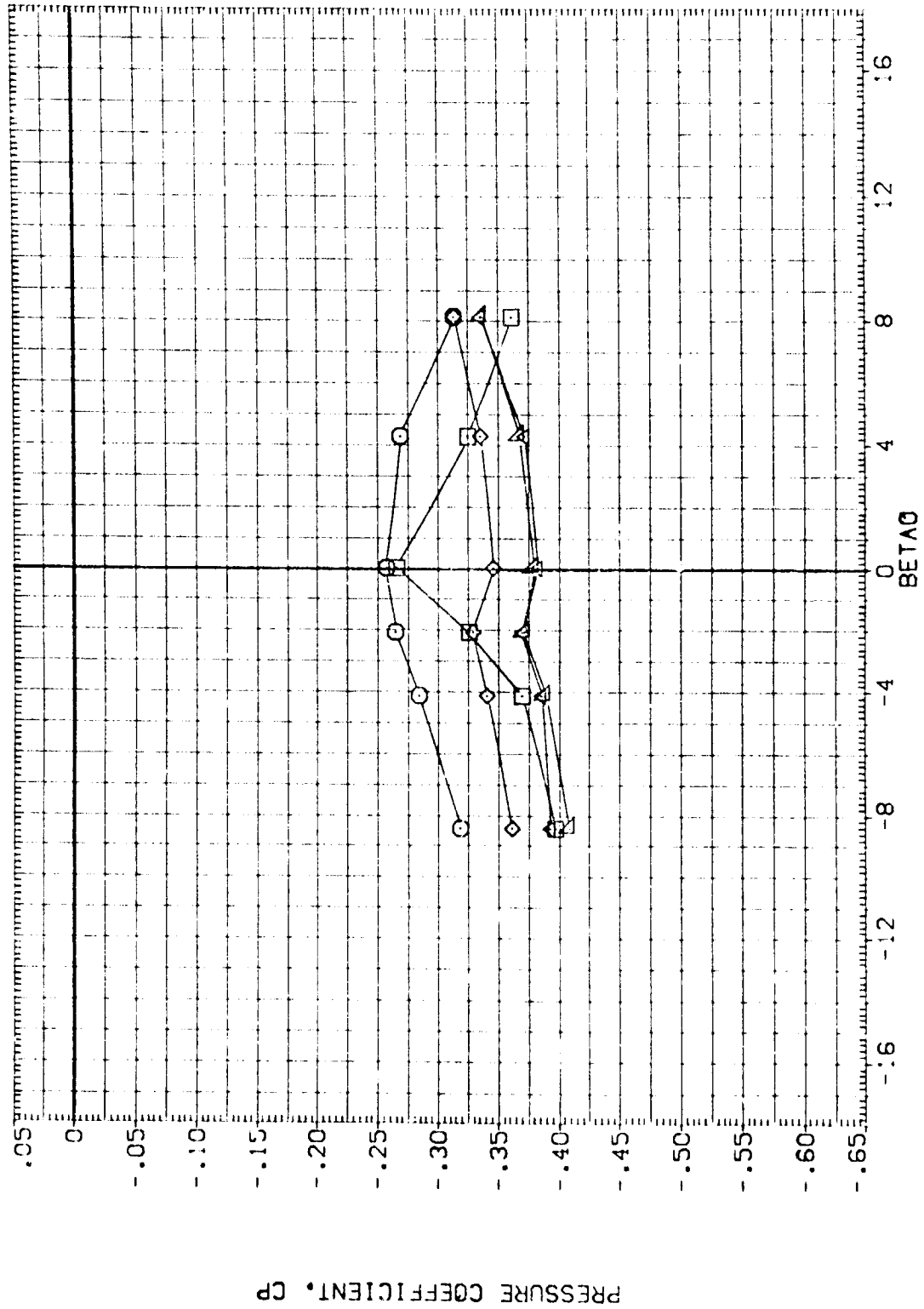
EXTERNAL TANK BASE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 ET + SRM BASE (RB1Y33)

SYMBOL TAP NO  
 1.0 501.000  
 1.0 502.000  
 1.0 801.000  
 1.0 802.000  
 1.0 803.000

ALPHA0  
 -.760

PARAMETRIC VALUES  
 MACH 1.250  
 RUDDER .000  
 ELEVON .000  
 SPOILER .000

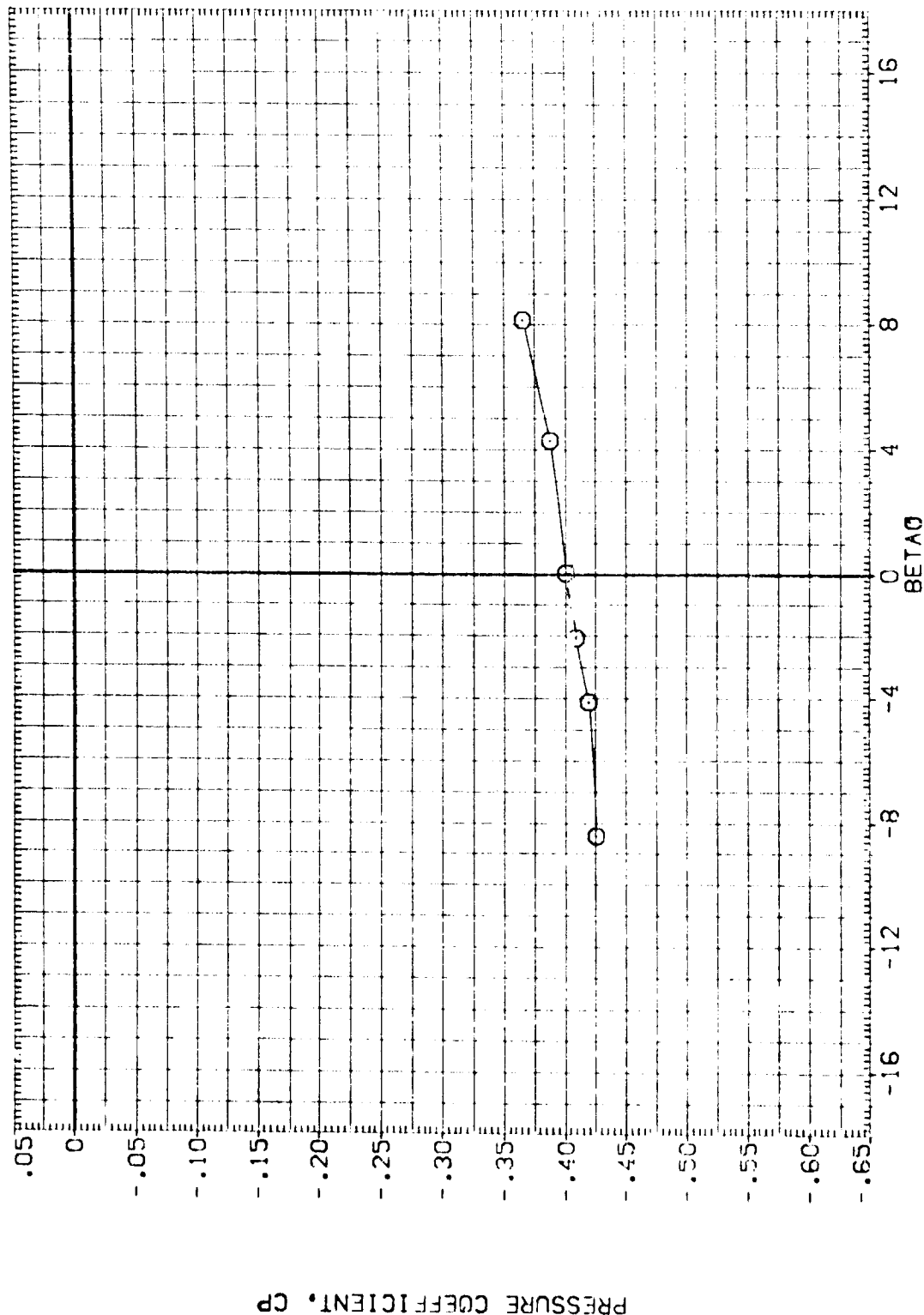


EXTERNAL TANK BASE PRESSURES



ARC11-716 1A14 01+T12+S12N25+AT10 ET + SRM BASE (RB1Y33)

SYMBOL	TAP NO	ALPHA	MACH	PARAMETRIC VALUES
○	804.000	-.760	RUDDER	1.250 ELEVON .000
				SPOBRK .000



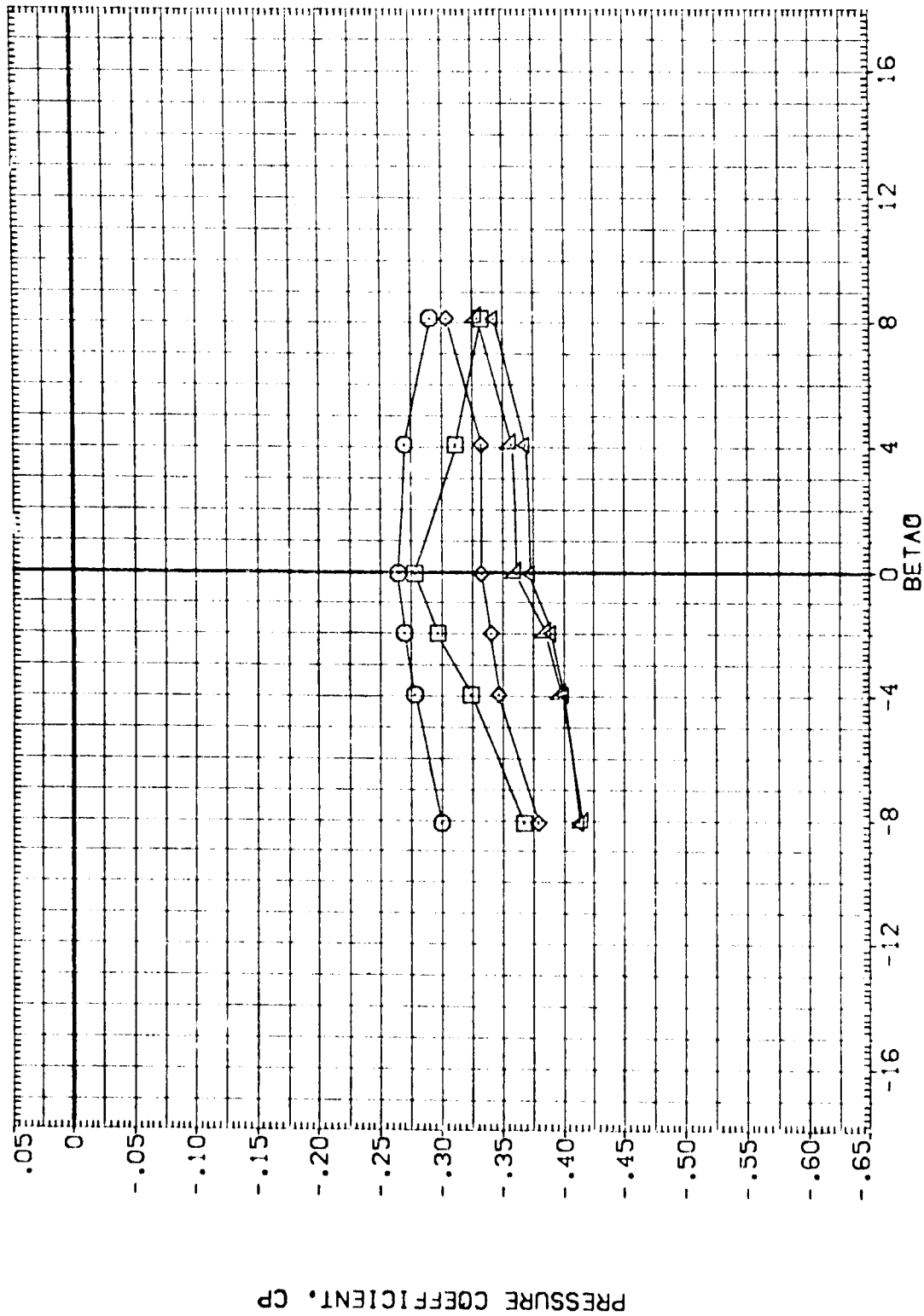
EXTERNAL TANK BASE PRESSURES

ARC11-716 IA14 01+T12+S12N25+AT10 ET + SRM BASE (RB1Y33)

SYMBOL  
 501.000  
 502.000  
 801.000  
 802.000  
 803.000

TAP NO  
 .000  
 .000  
 .000  
 .000  
 .000

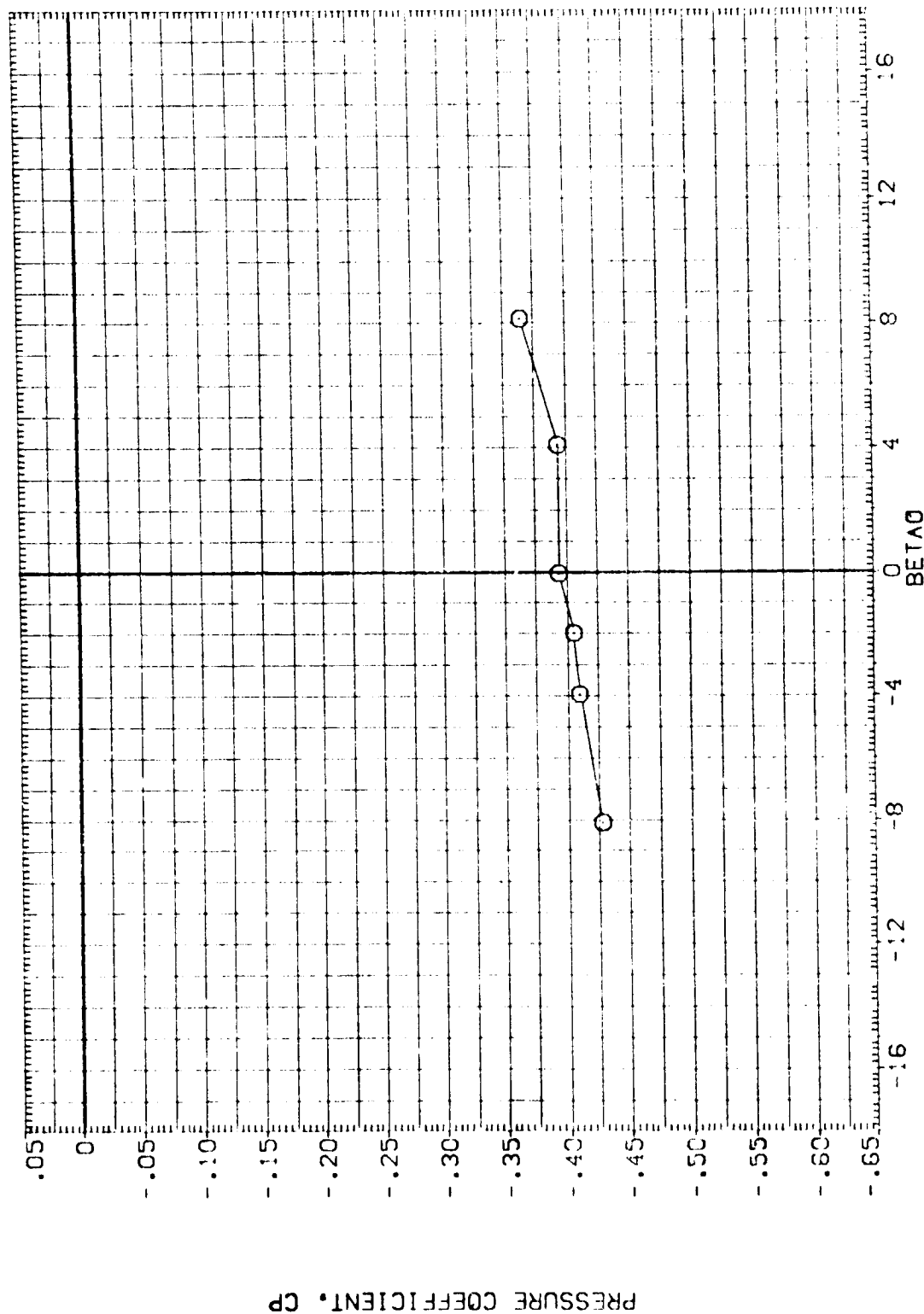
PARAMETRIC VALUES  
 MACH 1.250  
 RUDDER .000  
 ELEVON .000  
 SPDRK .000



EXTERNAL TANK BASE PRESSURES

ARC11-716 1A14 01+112+S12N25+AT10 ET + SRM BASE (RB1Y33)

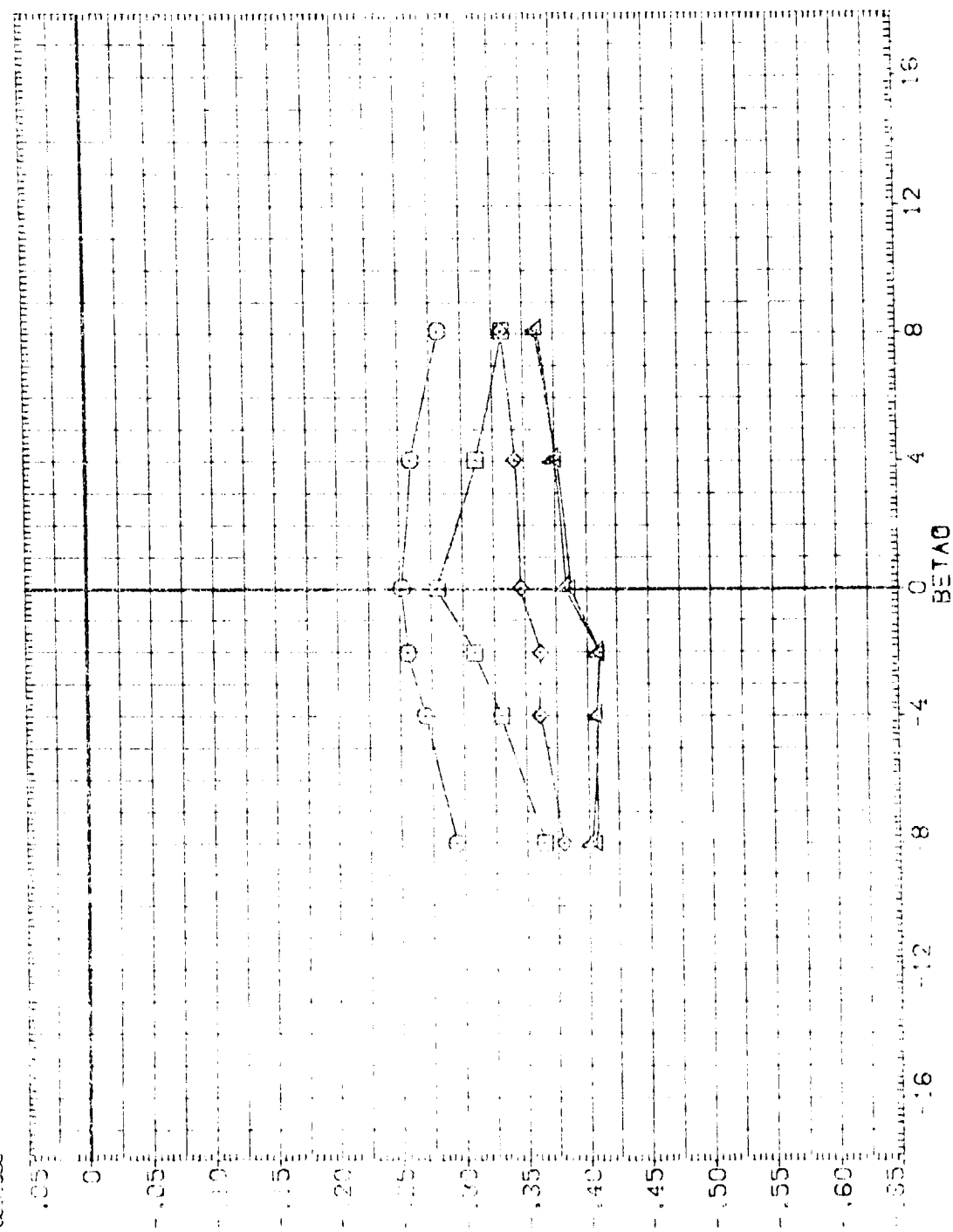
SYMBOL	TAP NO	ALPHA	PARAMETRIC VALUES
○	804.000	.000	MACH
		4.300	ELEVON
			SPDR%
			.000
			.000



EXTERNAL TANK BASE PRESSURES

ARC11-016 1314 01+12+S12N25+A10 ET + SRM BASE (R21Y33)

SYMBOL	TYPE	ALPHA	MACH	PARAMETRIC VALUES
○	501.000	.600	RUDDER	1.250 ELEVON
□	502.000			.000 SPEED
◇	801.000			
△	502.000			
▽	802.000			



EXTERNAL TANK BASE PRESSURES

ARC11-716 IA14 01+T12+S12N25+AT10 ET + SRM BASE (RB1Y33)

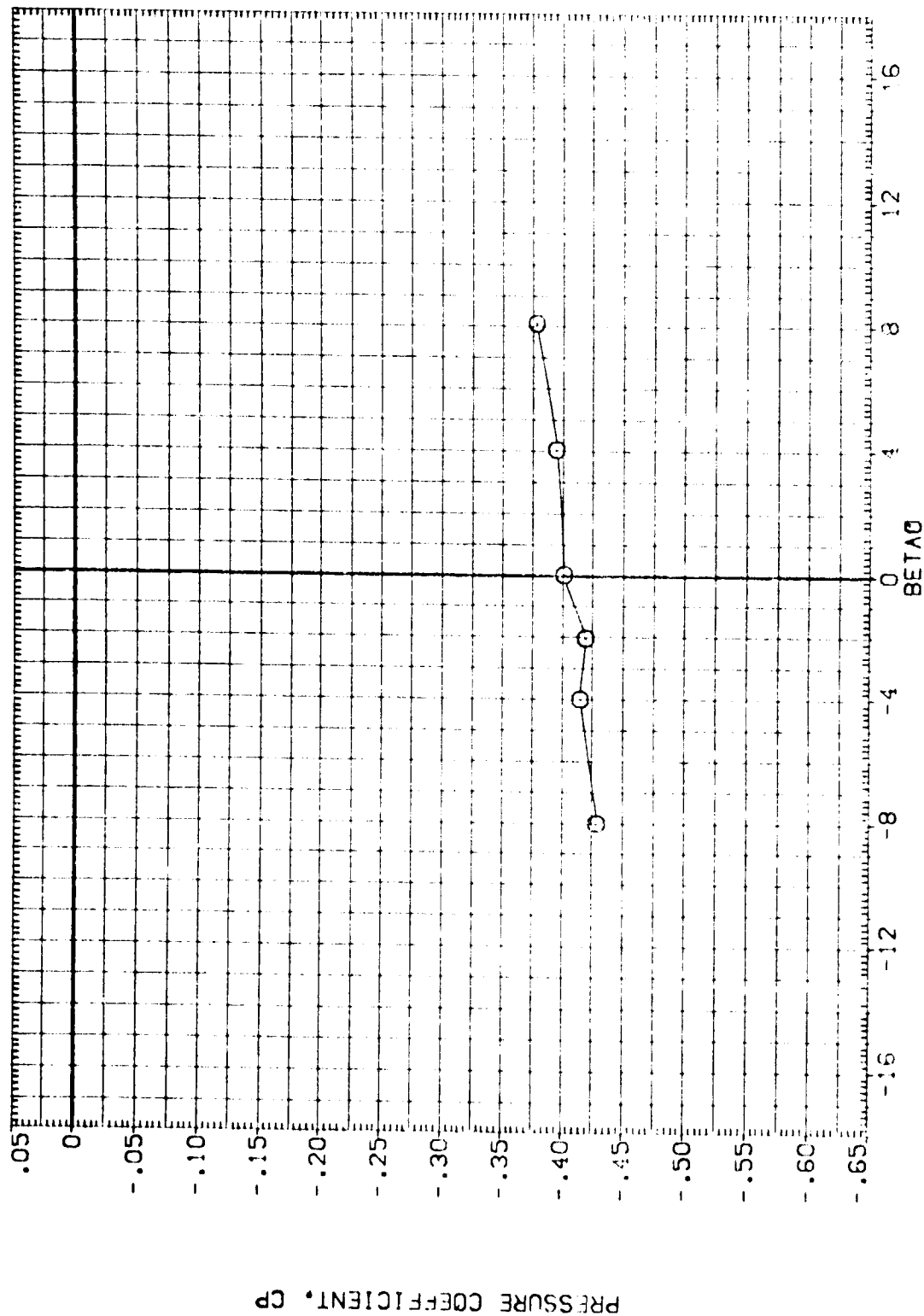
SYMBOL TAP NO

ALPHA

.000

0

PARAMETRIC VALUES  
MACH 1.250  
RUDDER .000  
ELEVON .000  
SPDBRK .000



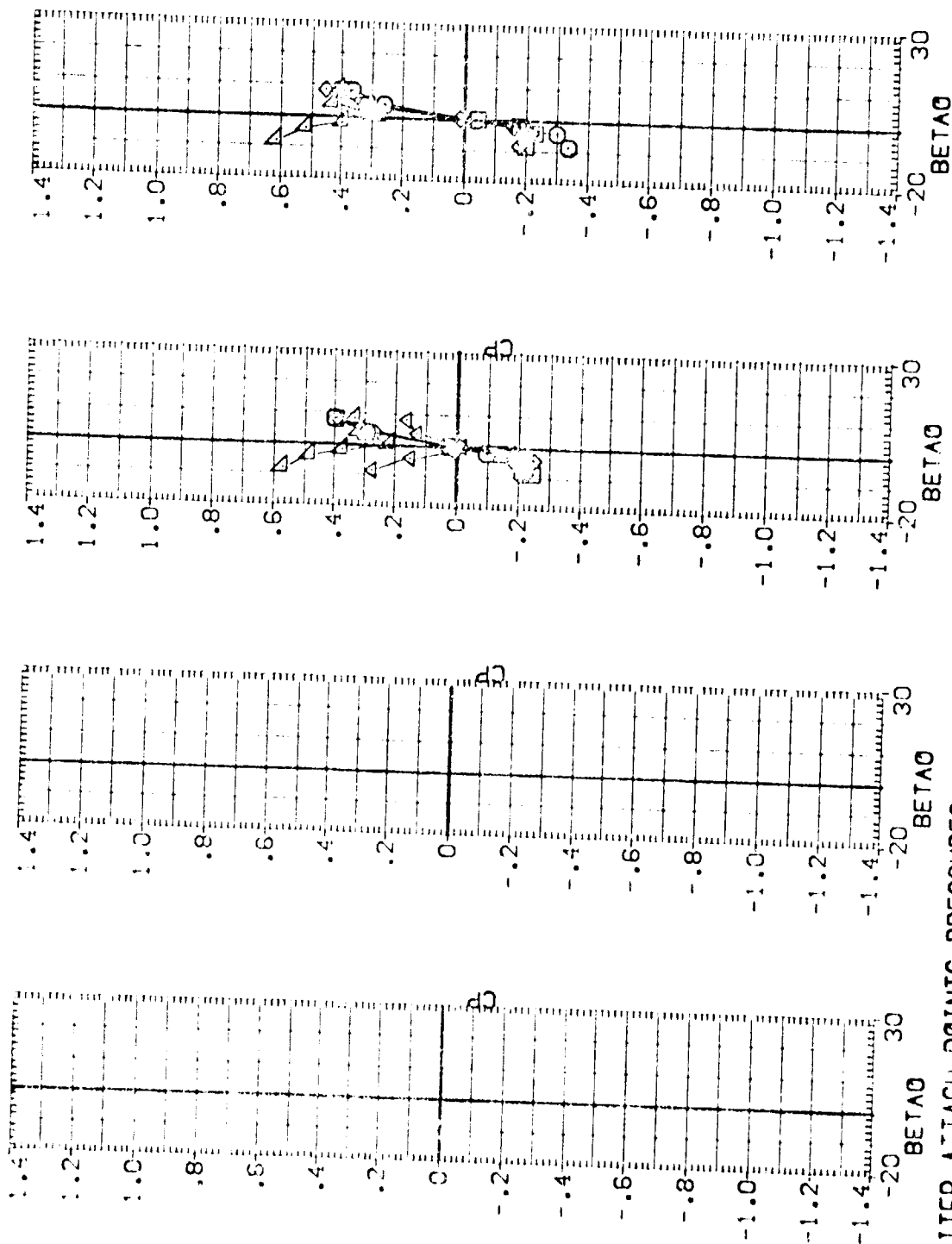
EXTERNAL TANK BASE PRESSURES

ARC:-7:6 [A14 C1+T12+S12N25+AT10 ORB ATTACH PTS(RB1133)

SYMBOL

Y/BV	X/LB	ALPHA
-0.277	.126	-8.220
-0.256	.133	
-0.234	.811	
-0.213	.819	
-0.192		

PARAMETRIC VALUES  
MACH 1.250 ELEVON .000  
RUDDER .000 SPOON .000



ORBITER ATTACH POINTS PRESSURES

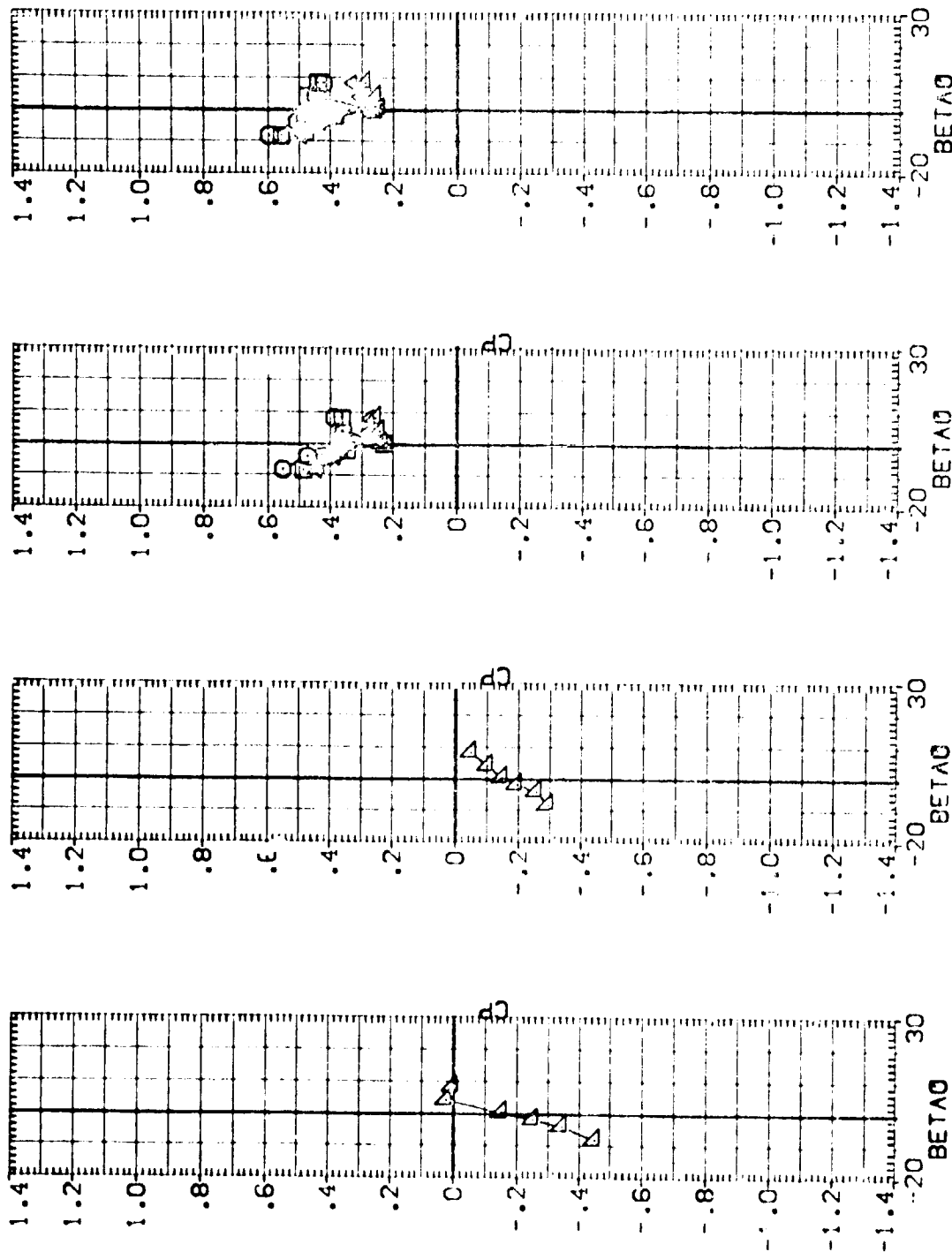
ARC11-716 1A14 01+112+S12N25+AT10 ORB ATTACH PTS(R81133)

SYMBOL □ ◇ △ ▽

V/BV X/LB ALPHA0  
 -.170 .126 -8.220  
 -.149 .133  
 -.107 .811  
 -.085 .819  
 -.054

PARAMETRIC VALUES  
 1.250 ELEVON .000  
 .000 SPOBRK .000

MACH  
 RUDDER



ORBITER ATTACH POINTS PRESSURES

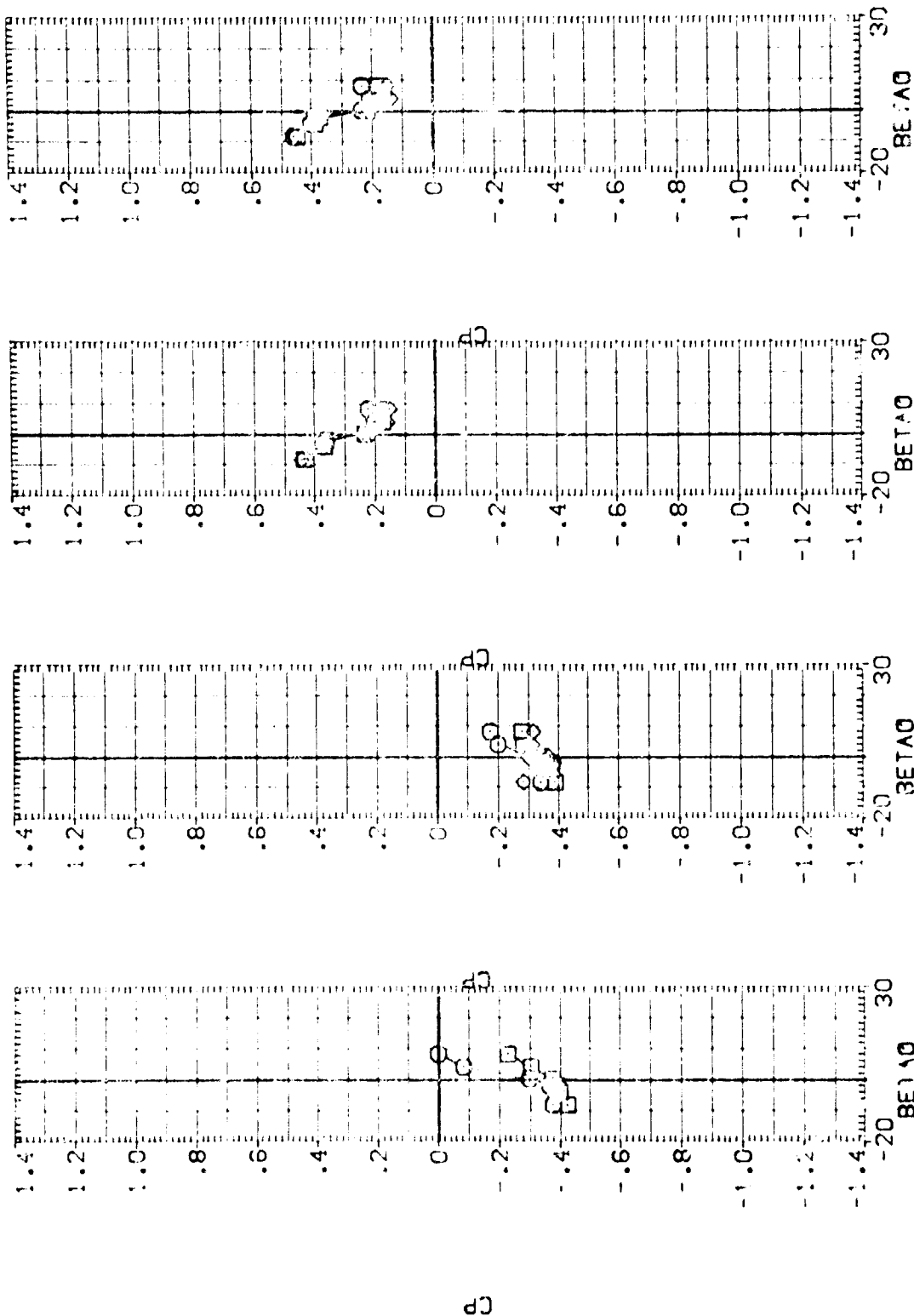
ARC11-718 1A14 01+112+S12N25+AT10 ORB ATTACH PTS(091133)

SYNTH  
0000

Y/BV K/LB ALPHA  
-0.013 .126 -8.220  
-0.021 .133  
.000 .811 .819

PARAMETRIC VALUES  
1.250 ELEVON .000  
.000 SPOBRK .000

MACH  
RUDDER





ARC11-716 1A14 01+T12-S12N25+AT10 ORB ATTACH PTS(RB1133)

SYMBOL

□ □ ◇ △

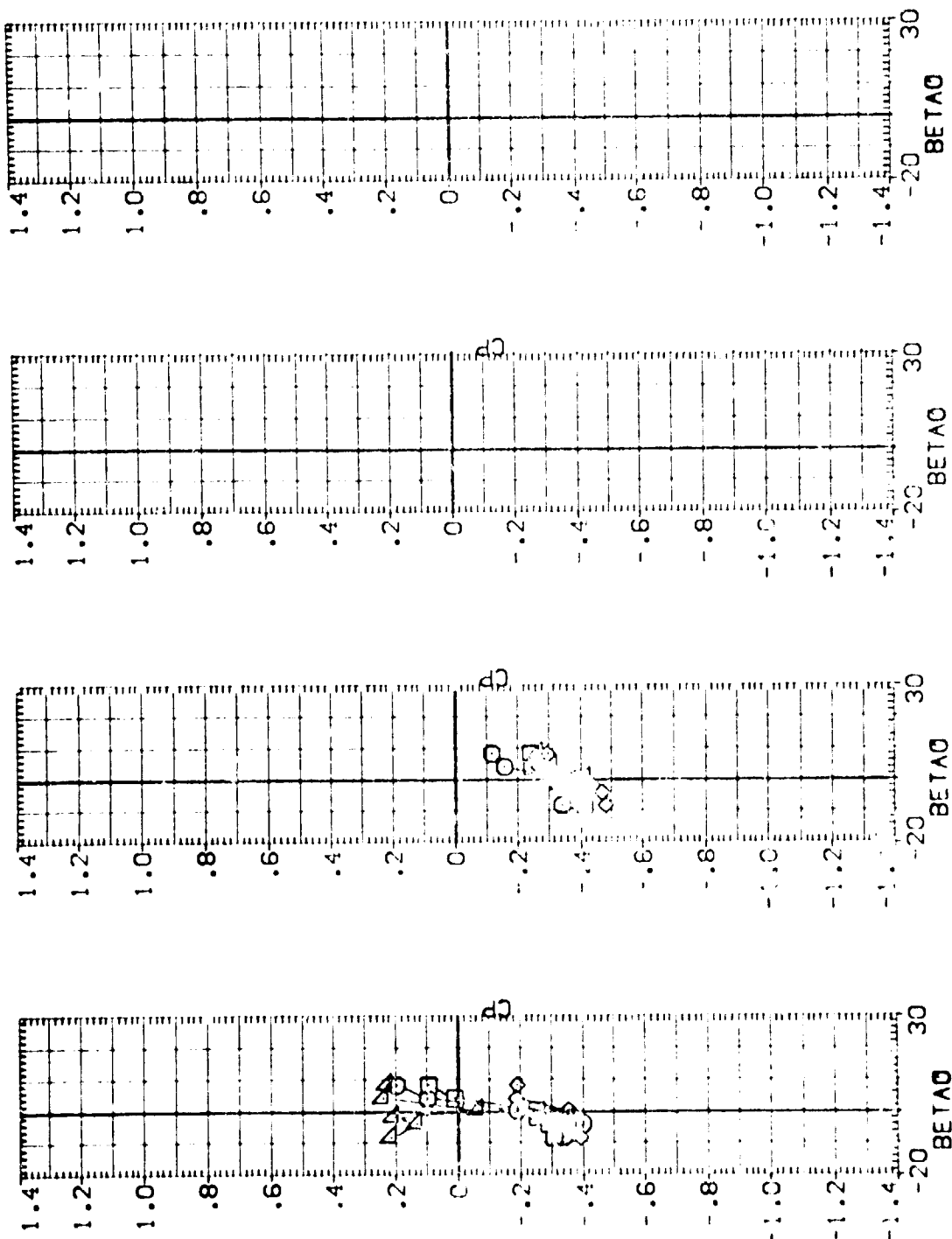
Y/BV X/LB ALPHA3

-.277 .827 -8.220  
-.256 .805  
-.234 .850  
-.213 .858  
-.192

PARAMETRIC VALUES

1.250 ELEVON .000  
.000 SPOILER .000

MACH  
RUDDER



ORBITER ATTACH POINTS PRESSURES

ORIGINAL PAGE IS  
OF POOR QUALITY



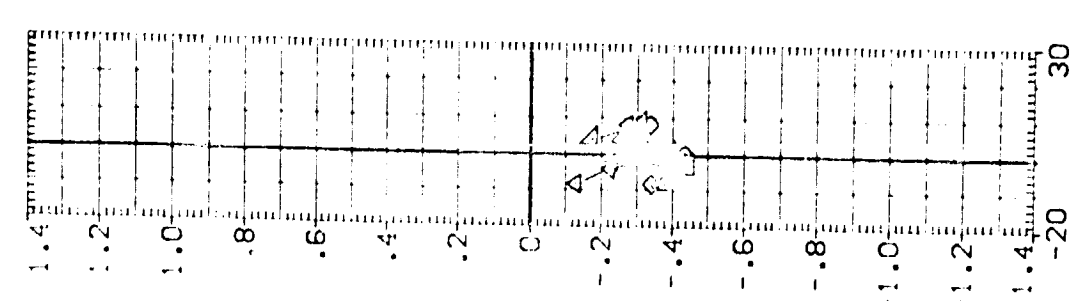
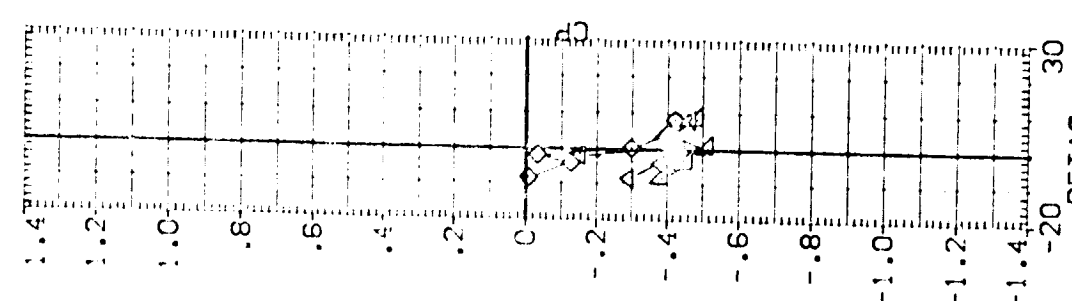
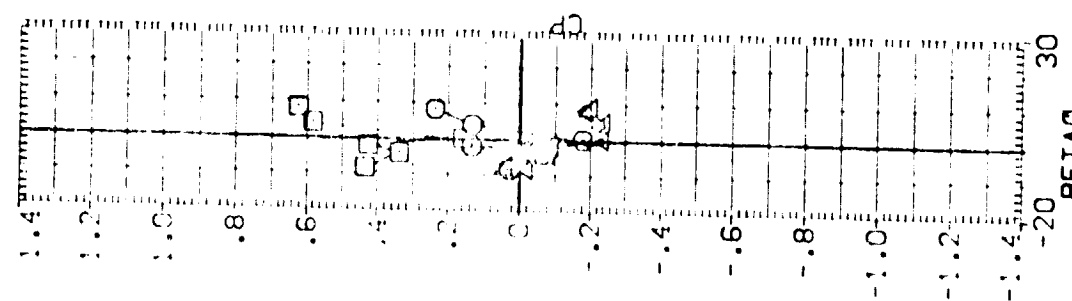
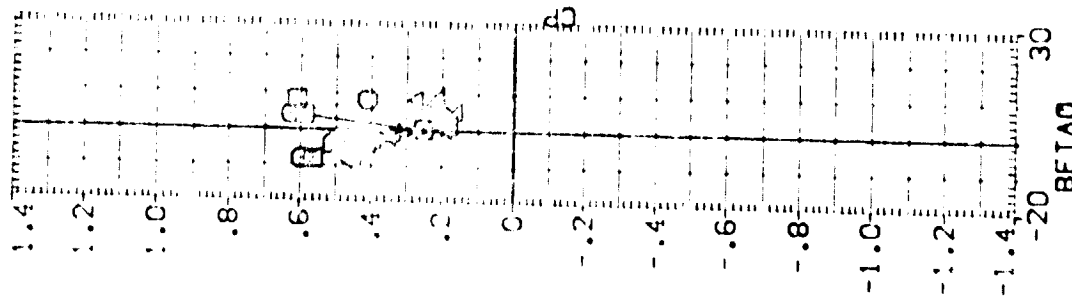
ARC11 T16 1A14 C1+T12+S12N25+AT10 CR8 ATTACH PTS(RB1133)

SYMBOL

Y/BV X/LB ALPHA  
 -.170 .827 -8.720  
 -.149 .835  
 -.137 .850  
 -.085 .858  
 -.064

PARAMETRIC VALUES  
 1.250 ELEVON .000  
 1.000 SPOON .000

MACH  
 RUDDER



ORBITER ATTACH POINTS PRESSURES

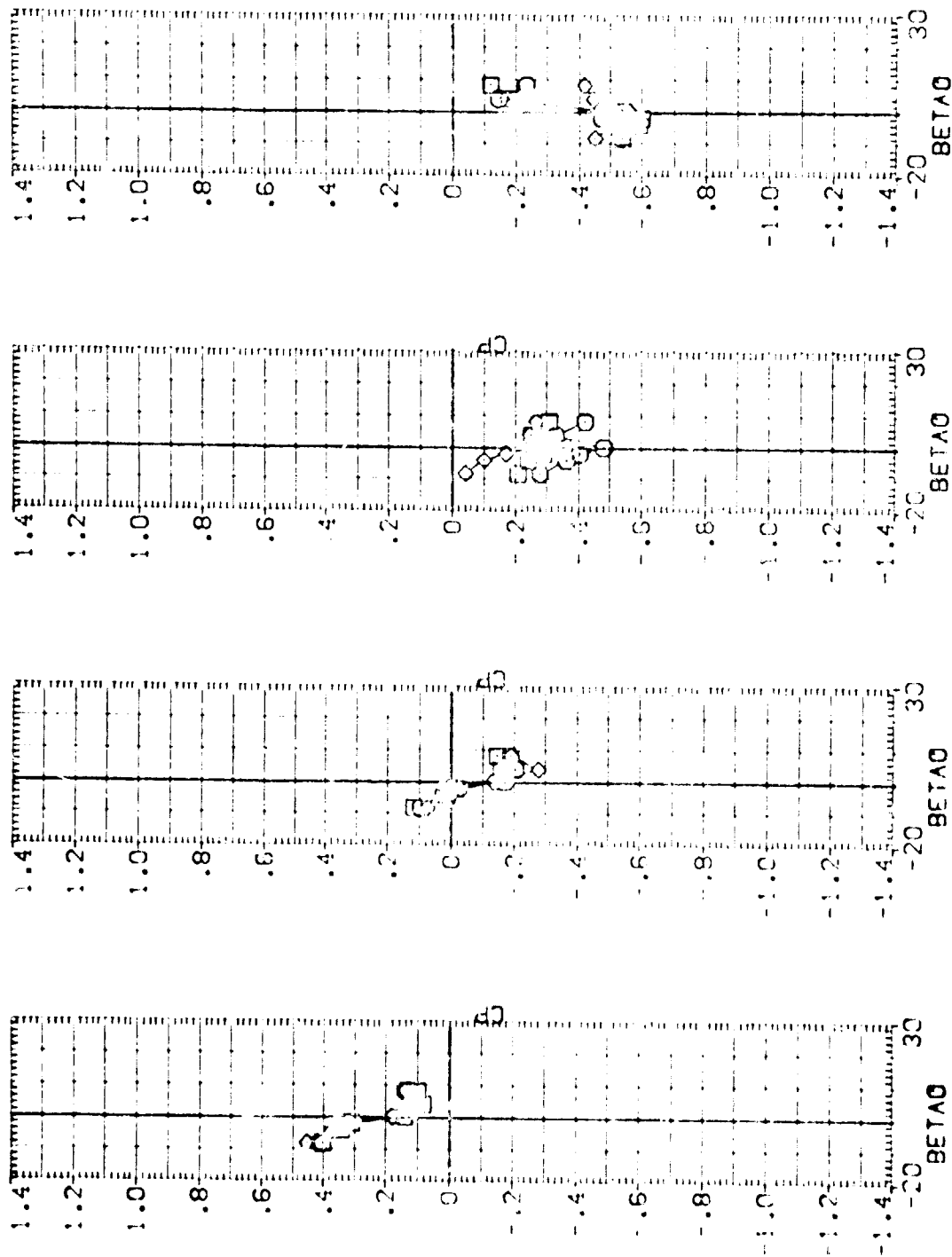
ARC:-716 1A:4 01+T12+S12N25+AT10 ORB ATTACH PTS(RB1133)

SYMBOL

Y/BV X/LB ALPHA0  
 -.043 .927 -8.220  
 -.021 .805  
 .000 .850 .858

PARAMETRIC VALUES  
 1.250 ELEVON .000  
 .000 SPOBRK .000

MACH  
 RUDDER



ORBITER ATTACH POINTS PRESSURES

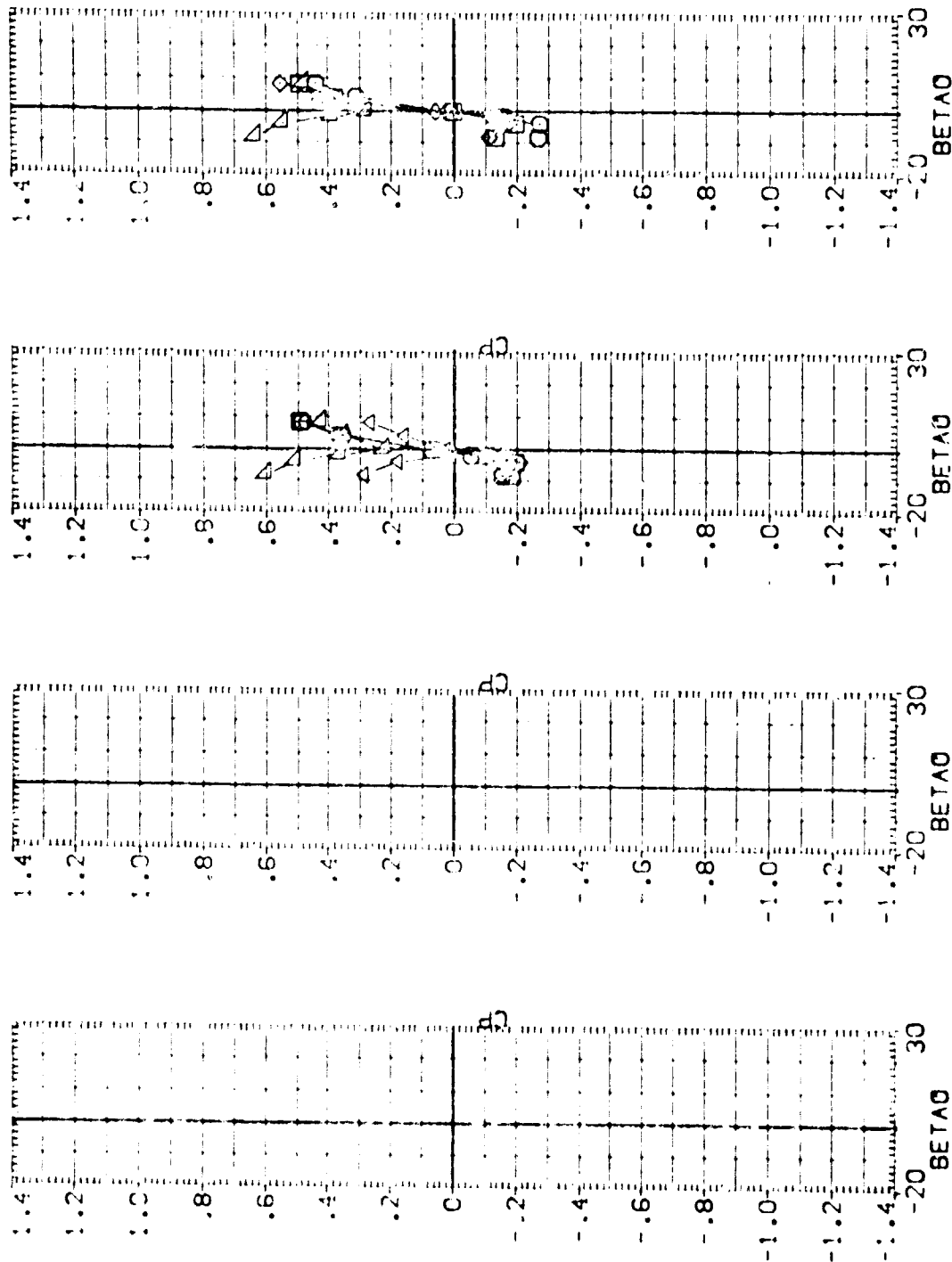
ARC11-016 J44 01712-S12A25-AT10 ORB ATTACH PTS (RB1133)

SYN00

Y/BV X/Z/B A/B/A/D  
 -1.277 -1.126 -1.1700  
 -1.256 -1.133  
 -1.234 -1.111  
 -1.213 -1.099  
 -1.192

MACH  
 RUDDER

PARAMETRIC VALUES  
 1.250 ELEVON .000  
 .000 STORK .000



ORBITER ATTACH POINTS PRESSURES

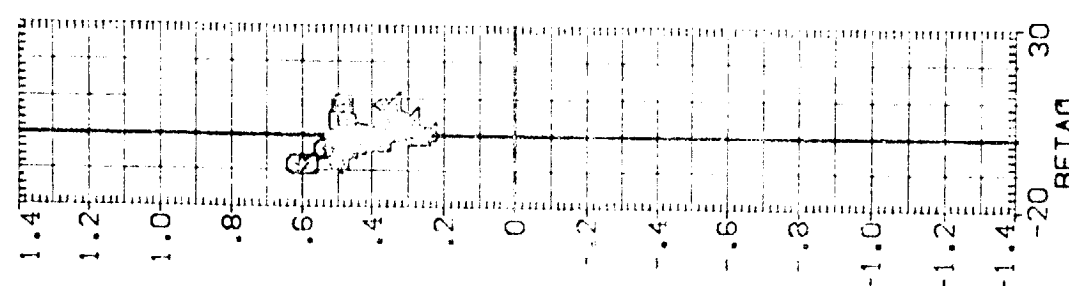
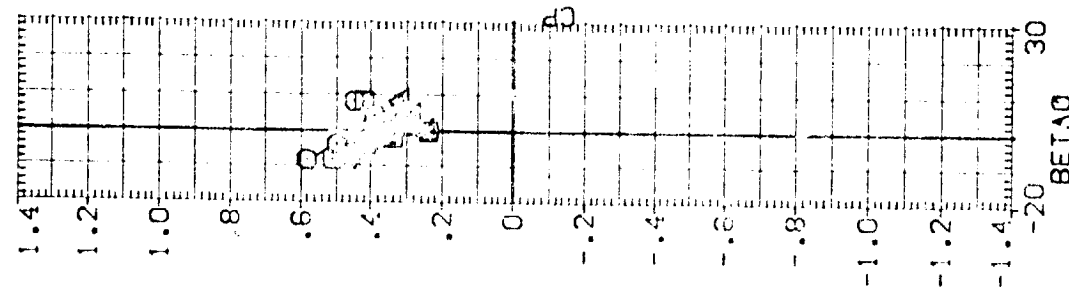
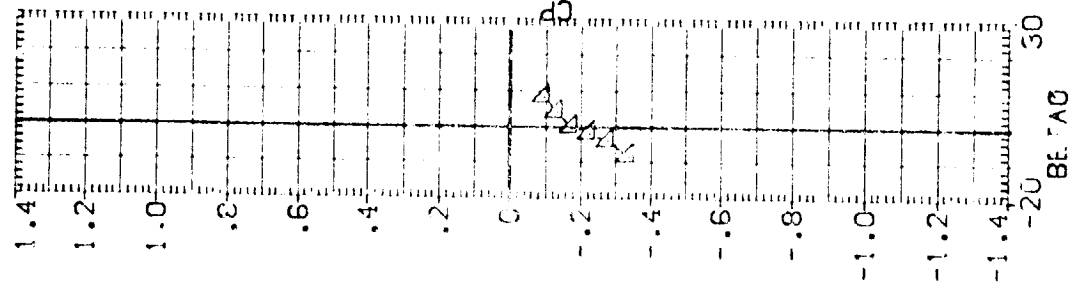
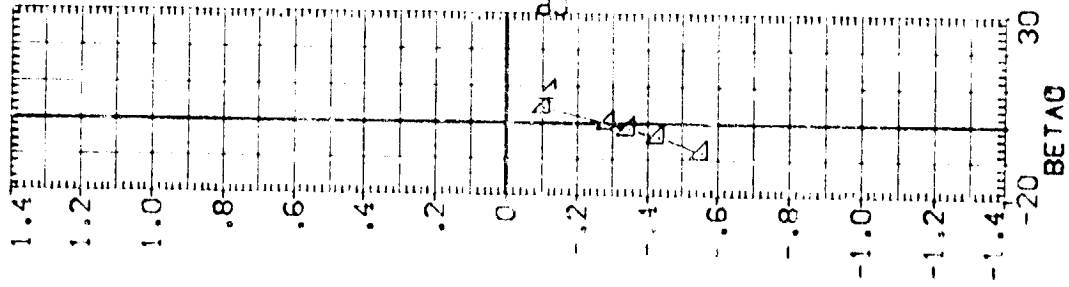
ARC11-716 I/14 01+112+S12N25+AT10 ORB ATTACH PTS(RB1133)

SYMBOL  
 O O O 4.1

Y/BV X/LB ALPHA  
 -.170 .126 -4.200  
 -.149 .133  
 -.107 .811  
 -.085 .819  
 -.064

PARAMETRIC VALUES  
 1.250 ELEVON .000  
 .000 SPOON .000

MACH  
 RUDDER



ORBITER ATTACH POINTS PRESSURES



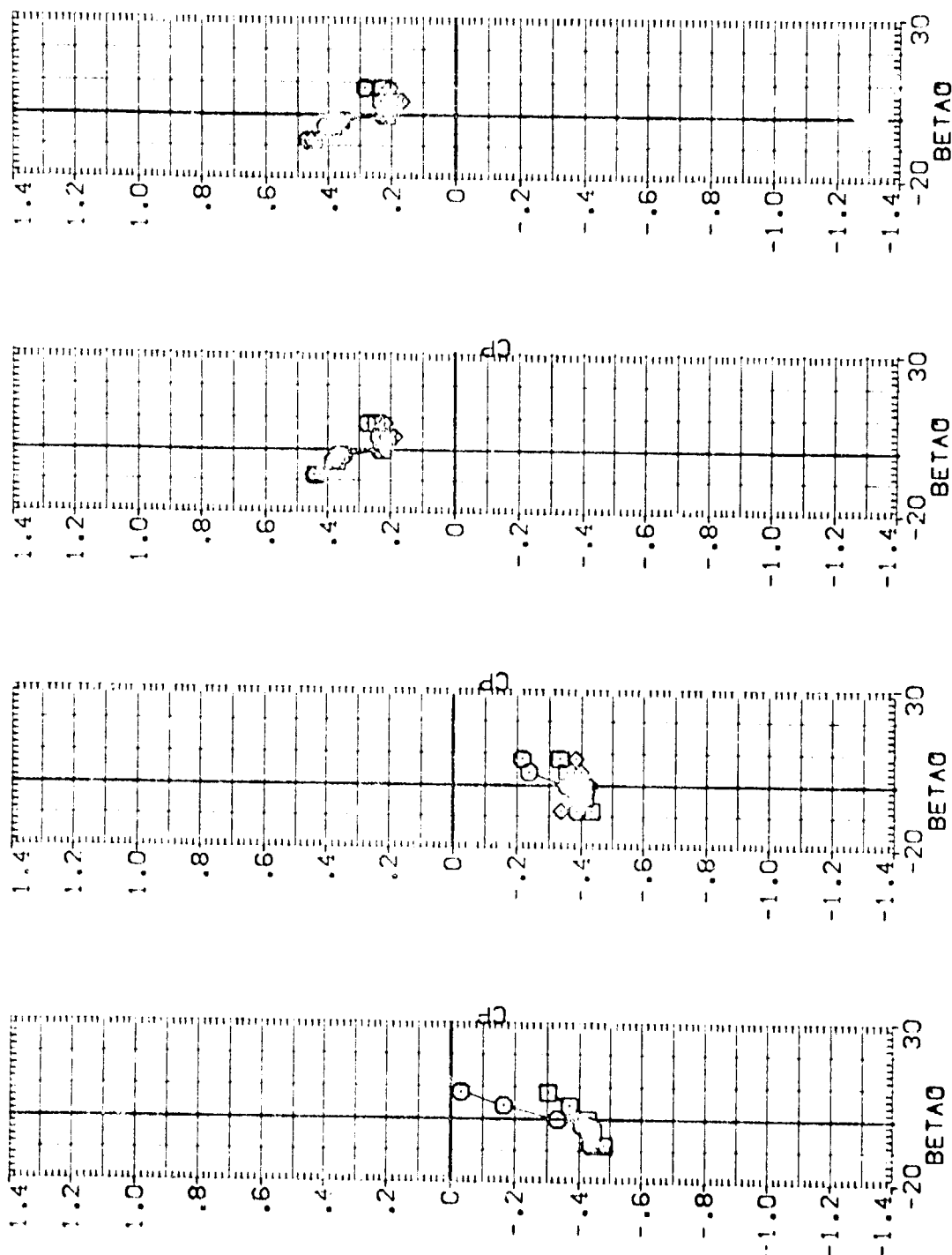
ARC11-718 1A14 01-12+S12N25+AT10 ORB ATTACH PTS (13:133)

SYMBOL

Y/BV .126  
 .043 .130  
 .021 .811  
 .000 .819

PARAMETRIC VALUES

MACH .000  
 RUDDER .000  
 ELEVON .000  
 SPOON .000



ORBITER ATTACH POINTS PRESSURES

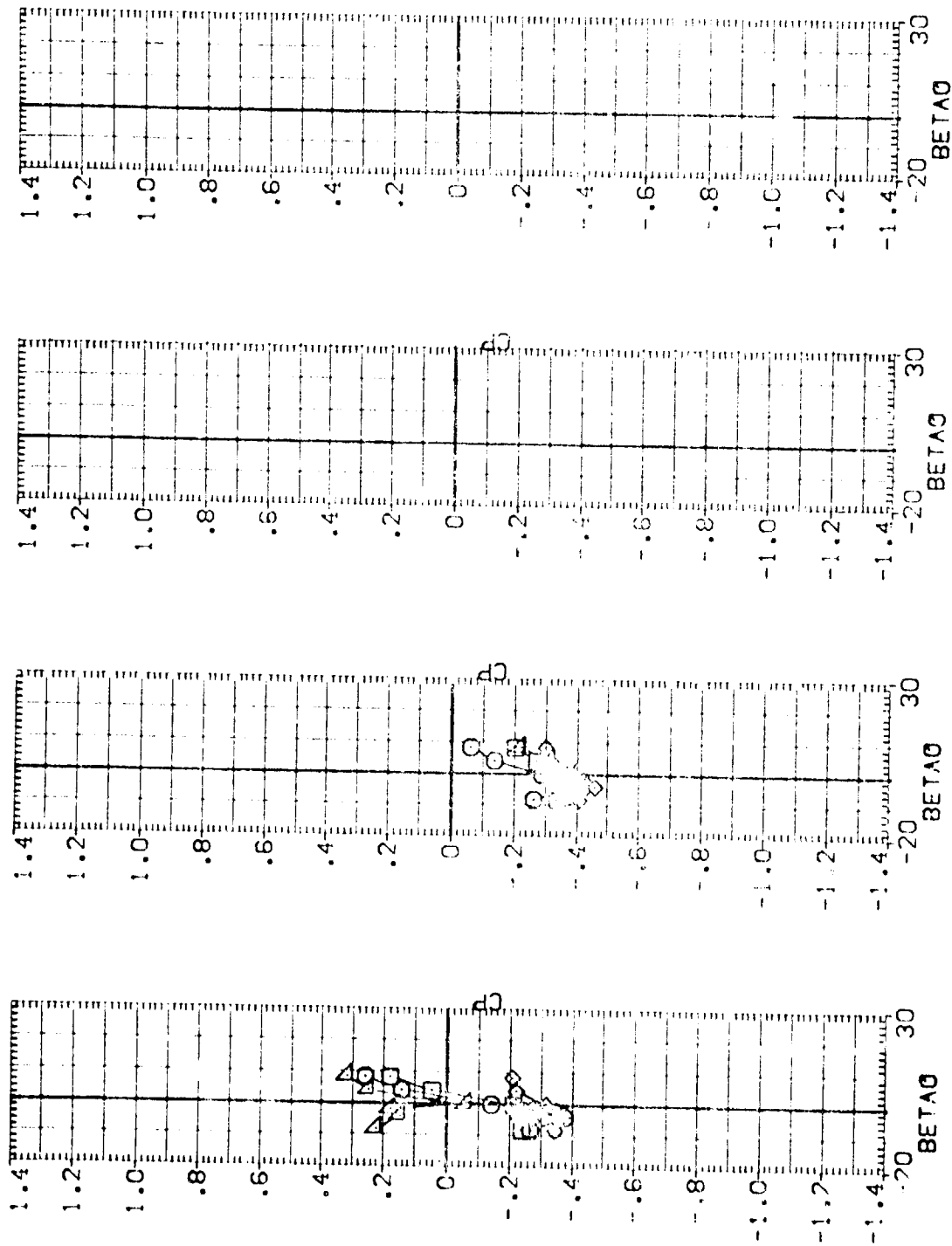
ARC11-716 1A14 01+T12+S12N25+AT10 ORB ATTACH PTS(RB1133)

SYMBOL

Y/BV	X/LB	ALPHA0
-.277	.827	-4.200
-.256	.805	
-.234	.850	
-.213	.858	
-.192		

PARAMETRIC VALUES  
1.250 ELEVON .000  
.000 SPOOR .000

MACH  
RUOER



ORBITER ATTACH POINTS PRESSURES

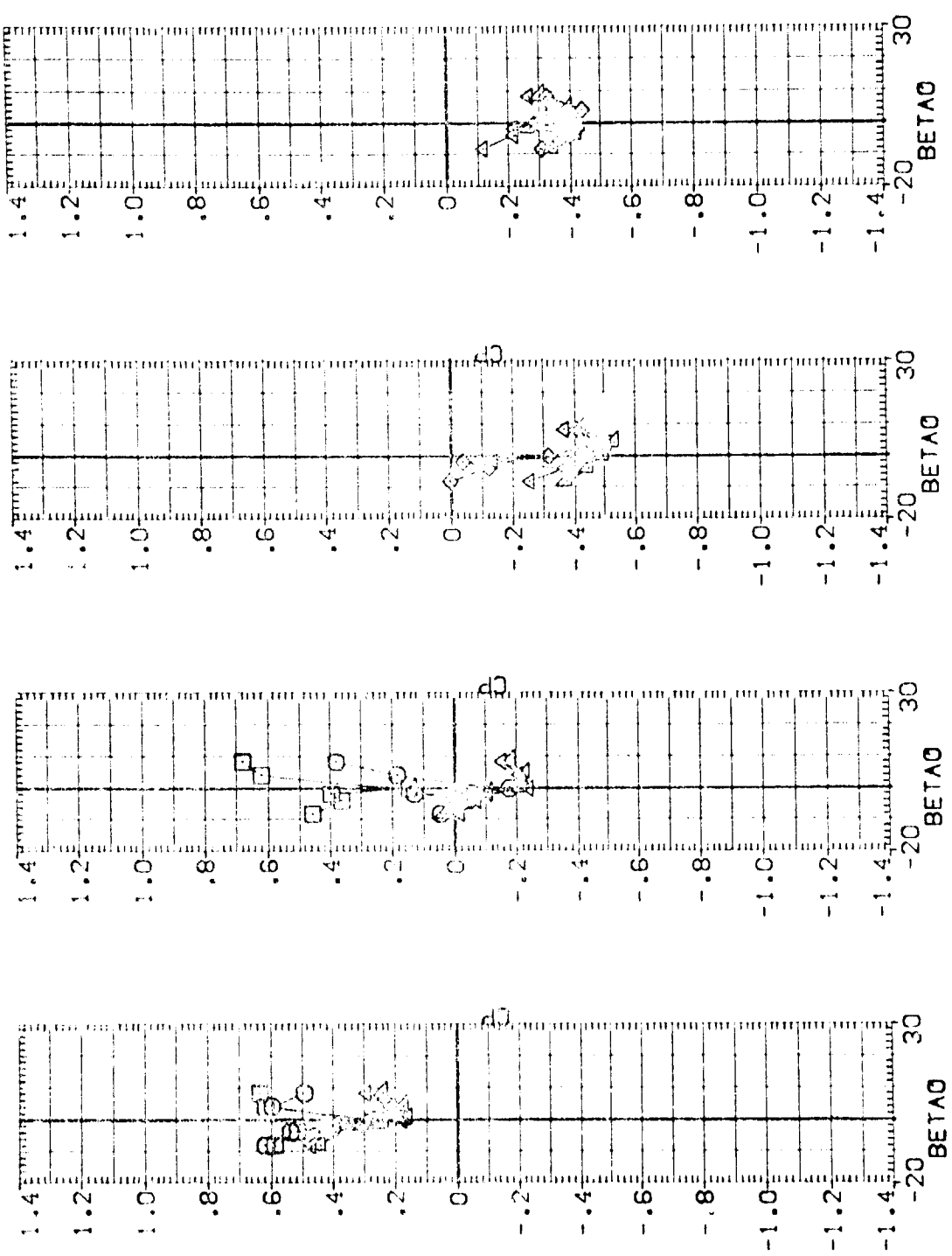
ARC11-16 1A14 01+112+S12N25+AT10 OR8 ATTACH PTS(RB1133)

SYMBOL  
 □ ◇ △

Y/BV X/LB ALPHAC  
 -.170 .627 -4.200  
 -.149 .835  
 -.107 .850  
 -.085 .758  
 -.064

MACH  
 RUDDER

PARAMETRIC VALUES  
 1.750 ELEVON  
 .000 SPOBRK  
 .000



ORBITER ATTACH POINTS PRESSURES



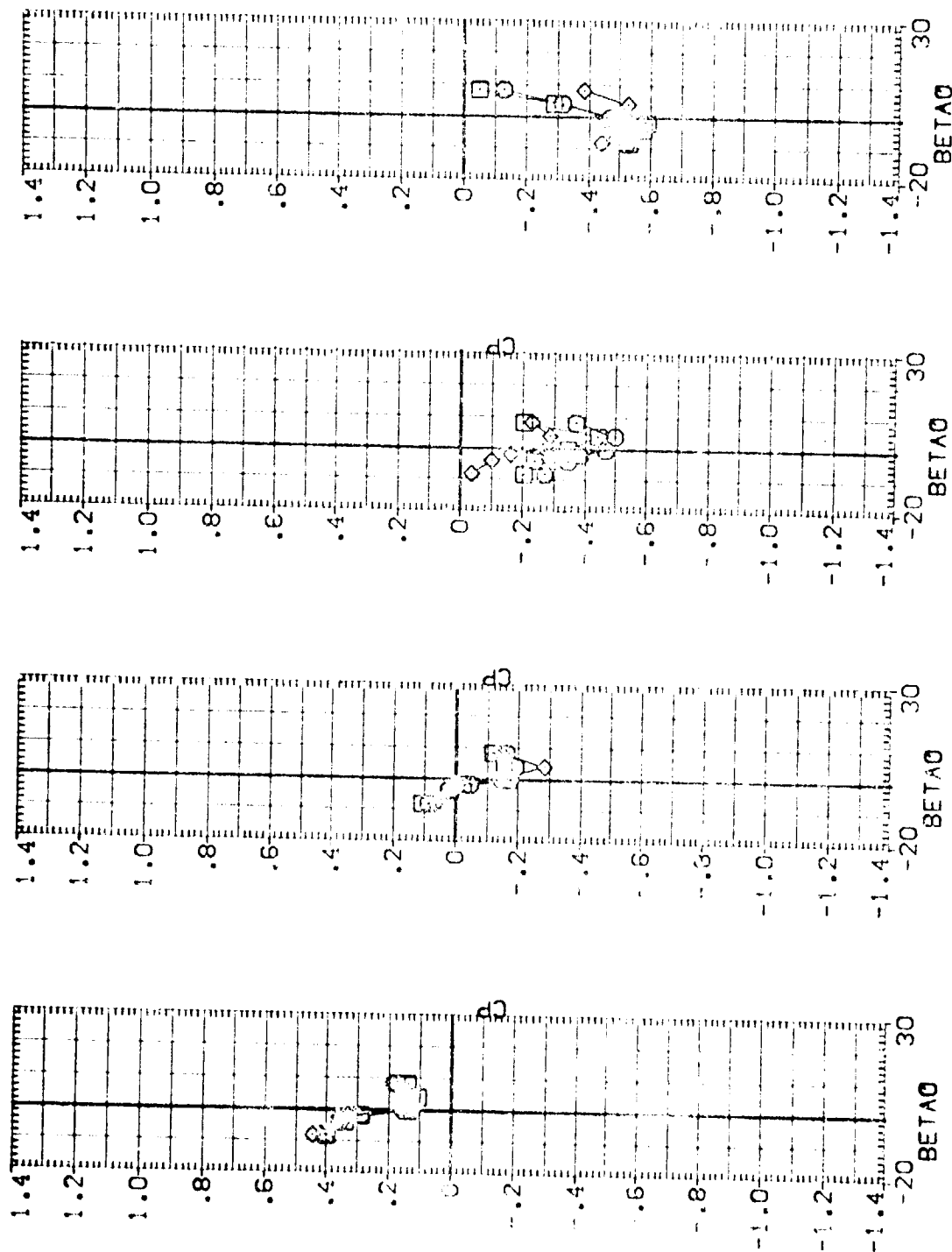
ARC11-716 1A14 01+T12+S12N25+AT10 ORB ATTACH PTS(RB: .33)

SYMBOL

Y/BV X/LB ALPHA0  
 -.043 .827 -4.200  
 -.021 .835  
 .000 .850  
 .858

PARAMETRIC VALUES

MACH RUDDER  
 1.250 ELEVON .000  
 .000 SPEEDBRK .000



ORBITER ATTACH POINTS PRESSURES

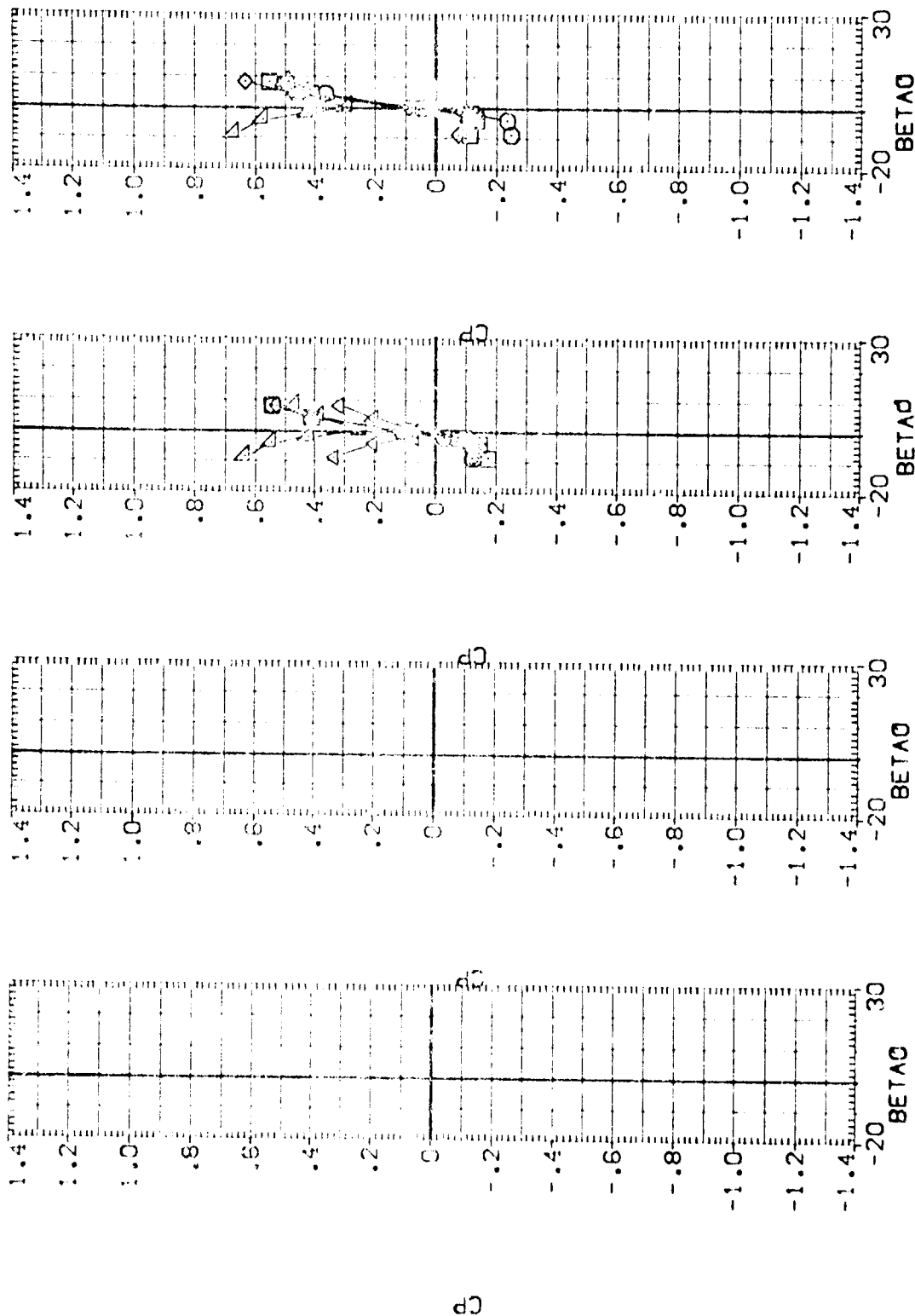
ARC11-716 1A14 01+T12+S12N25+AT1C OR3 ATTACH PTS(RB1133)

SYMBOL

Y/BV	X/LB	ALPHA
-.277	.126	-.760
-.256	.133	
-.234	.811	
-.213	.819	
-.192		

PARAMETRIC VALUES  
1.250 ELEVON .000  
.000 SPOILER .000

MACH  
RUDDER



ORBITER ATTACH POINTS PRESSURES

ARC11-716 IA14 01+T12+S12N25+AT10 ORB ATTACH PTS(RB1133)

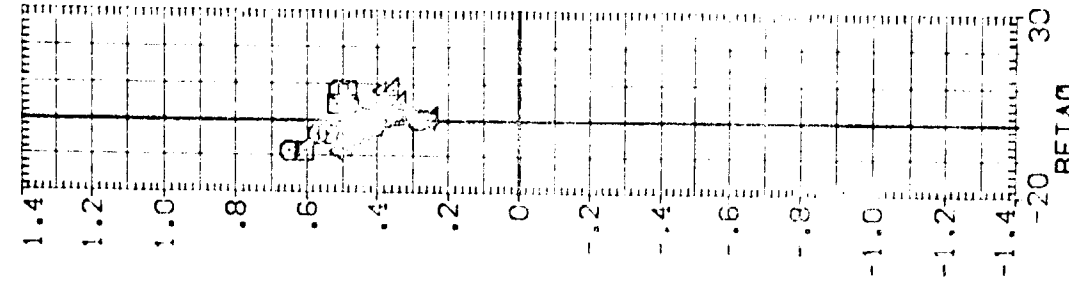
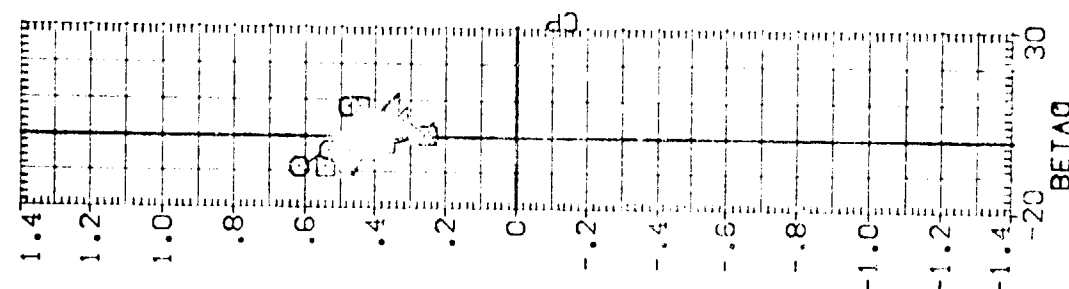
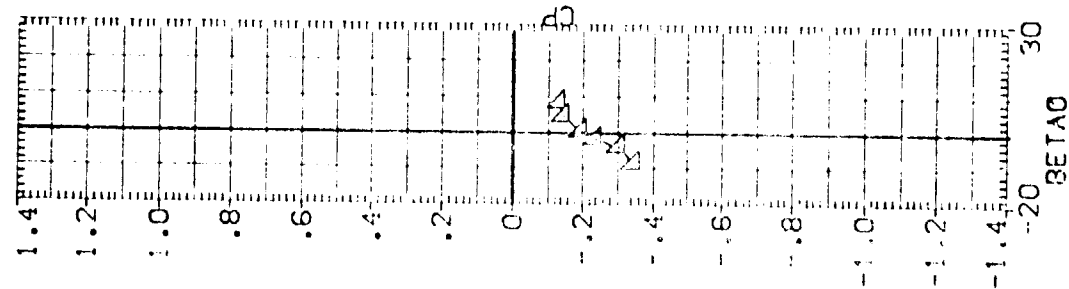
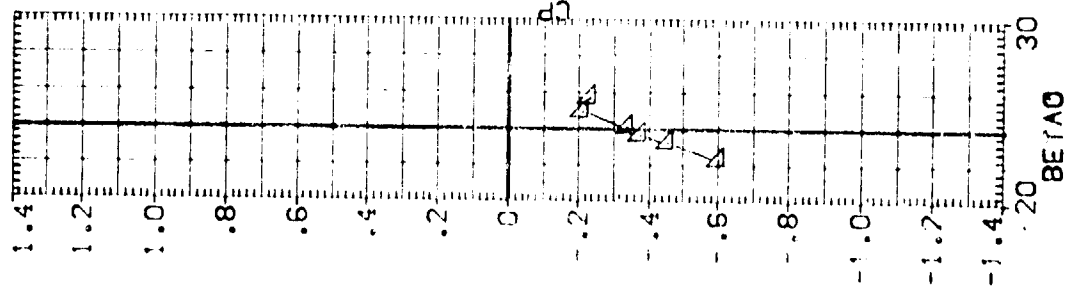
SYMBOL

□ □ ◇ △

V/8V X/LB ALPHA0  
 -.170 .126 -.760  
 -.149 .133  
 -.107 .811  
 -.085 .819  
 -.064

PARAMETRIC VALUES  
 1.250 ELEVON  
 .000 SPOORX  
 .000

MACH  
 RUDDER



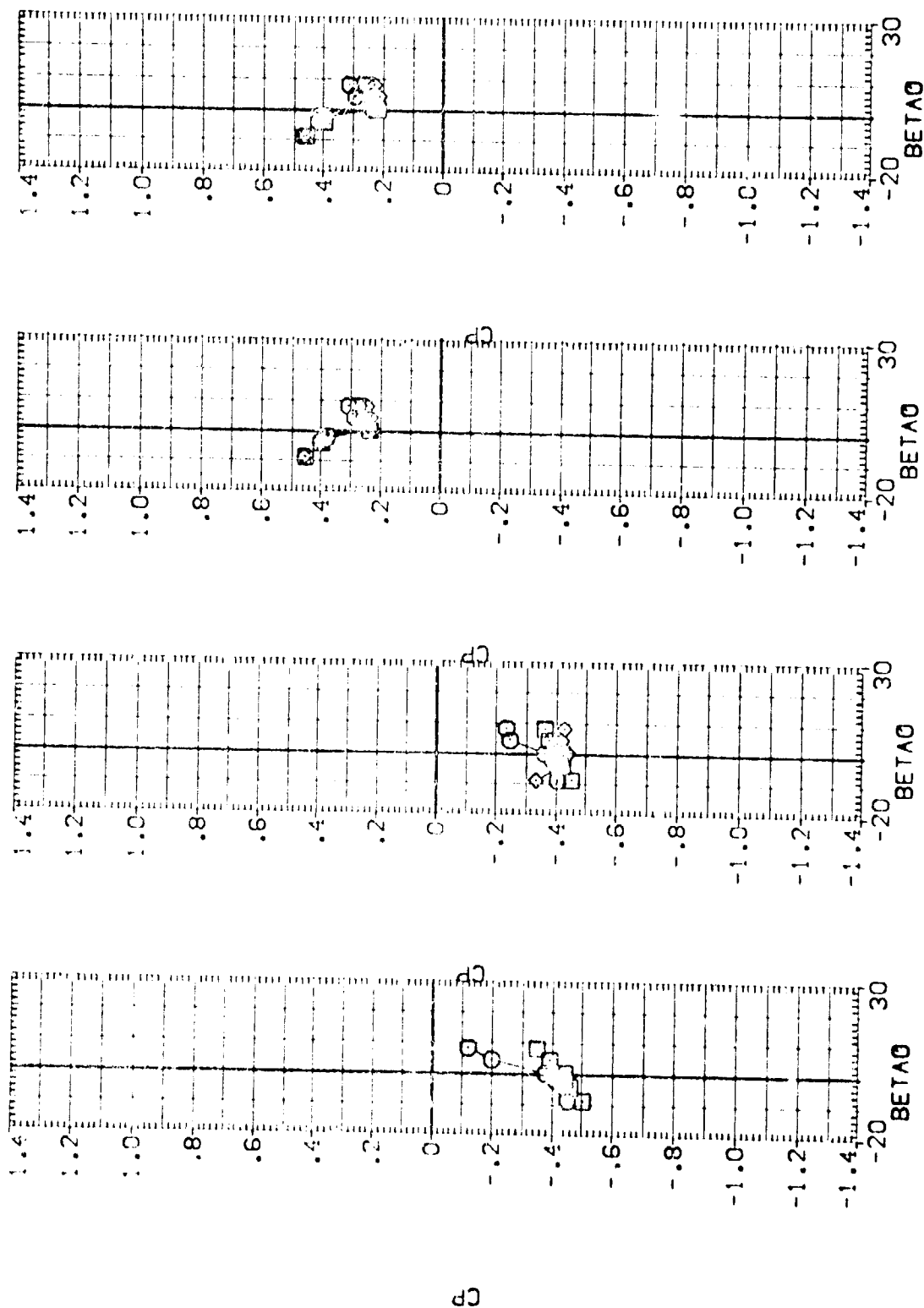
ORBITER ATTACH POINTS PRESSURES

ARC11-716 1A14 01+12+S12N25+AT10 ORB ATTACH PTS(RB11C3)

SYMBOL

Y/BV X/LB ALPAC  
 -.043 .126 -.750  
 -.021 .133  
 .000 .811 .819

PARAMETRIC VALUES  
 1.250 ELEVON .000  
 .000 SPOBRK .000  
 MACH  
 RUDDER



ORBITER ATTACH POINTS PRESSURES

ARC11-716 1A14 01+T12+S12N25-AT10 ORB ATTACH PTS(RB1133)

SYMBOL

□ □ ◇ 44

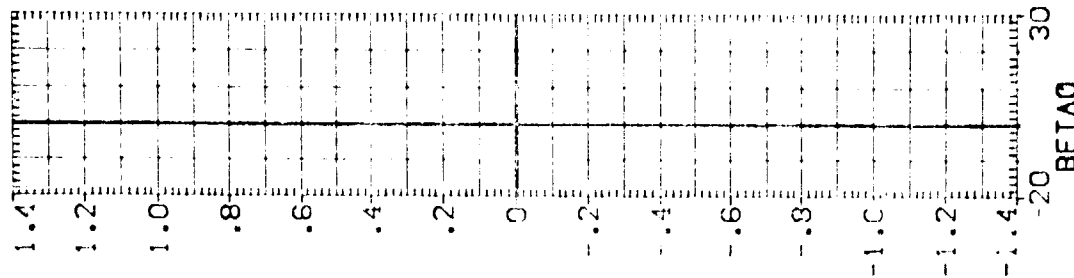
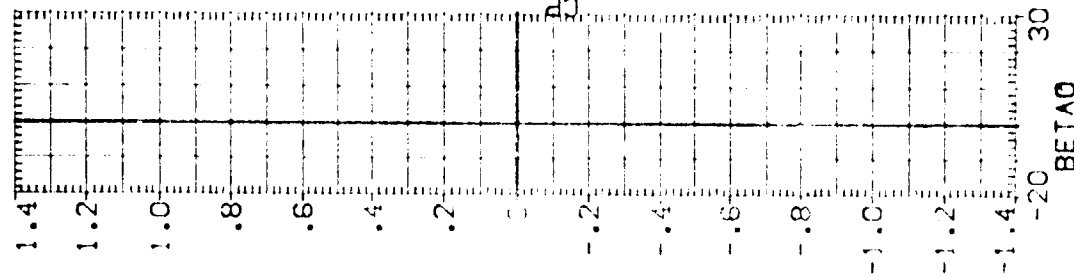
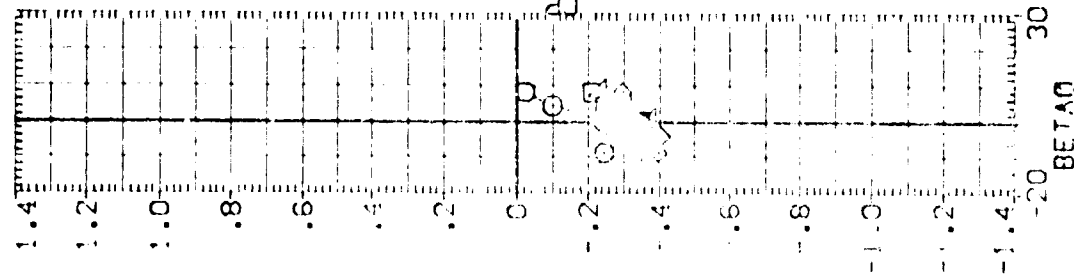
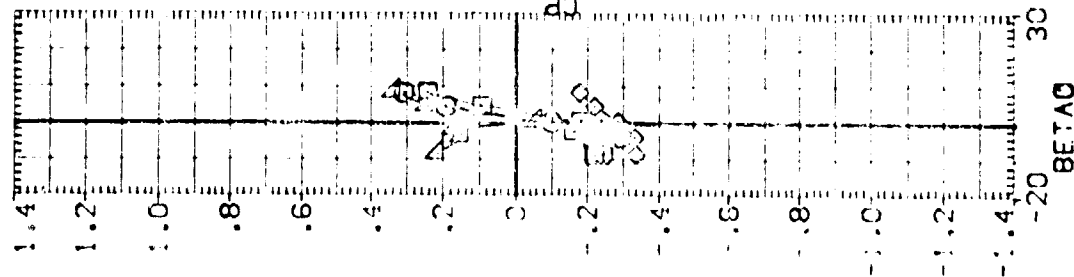
Y/BV X/LB ALPHA0

-.277 .877 -.783  
-.256 .835  
-.234 .850  
-.213 .858  
-.192

PARAMETRIC VALUES

1.250 ELEVON .000  
.000 SPOBRK .000

MACH  
RUDDER



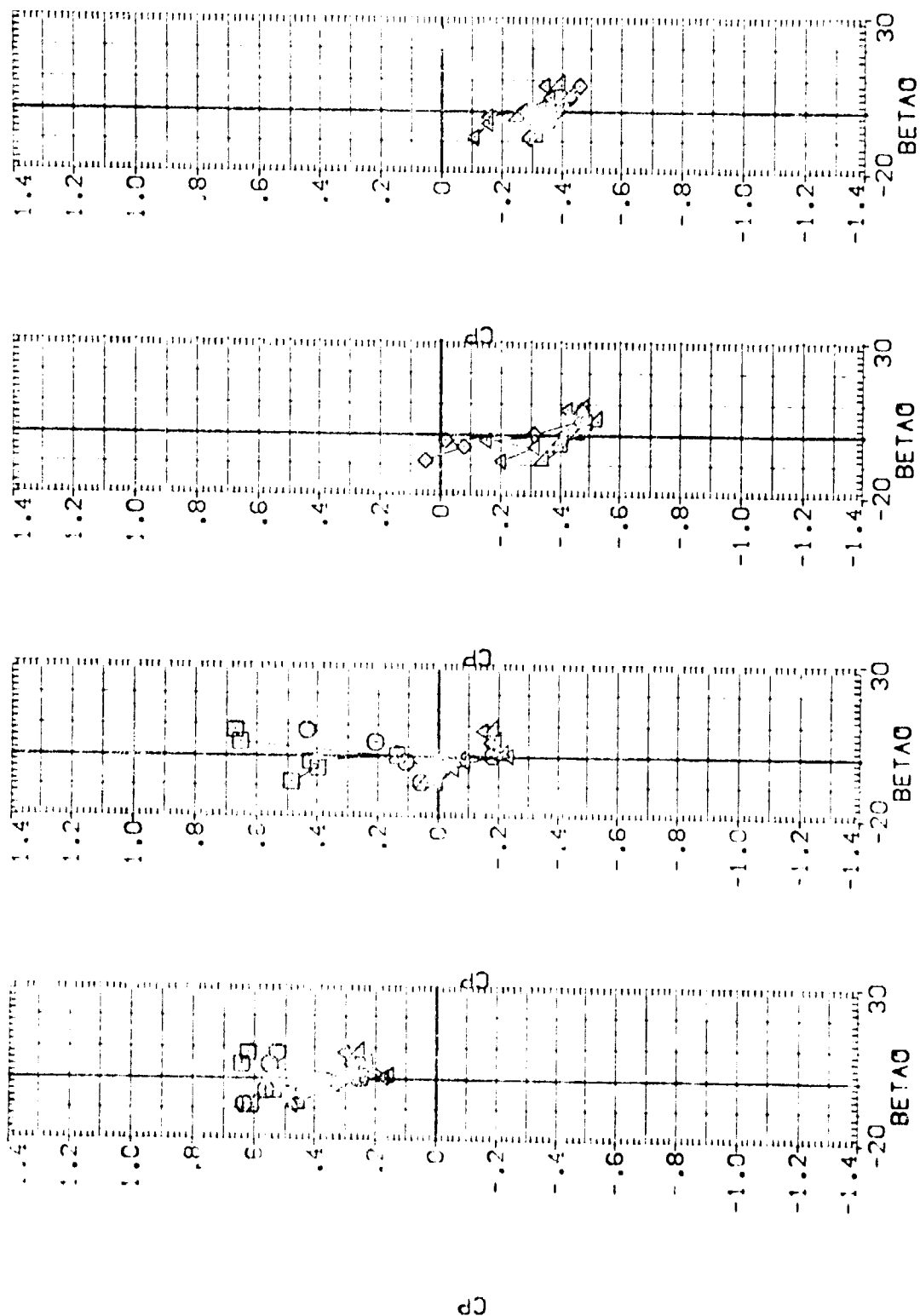
ORBITER ATTACH POINTS PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 0R8 ATTACH PTS(RP1133)

Symbol

Y/BV	Y/LB	ALP+AD
-.170	.827	-.760
-.149	.805	
-.107	.850	
-.065	.838	
-.064		

PARAMETRIC VALUES		
1.250	ELEVON	.000
.000	SPDBRK	.000
	MACH	
	RUDDER	



ORBITER ATTACH POINTS PRESSURES

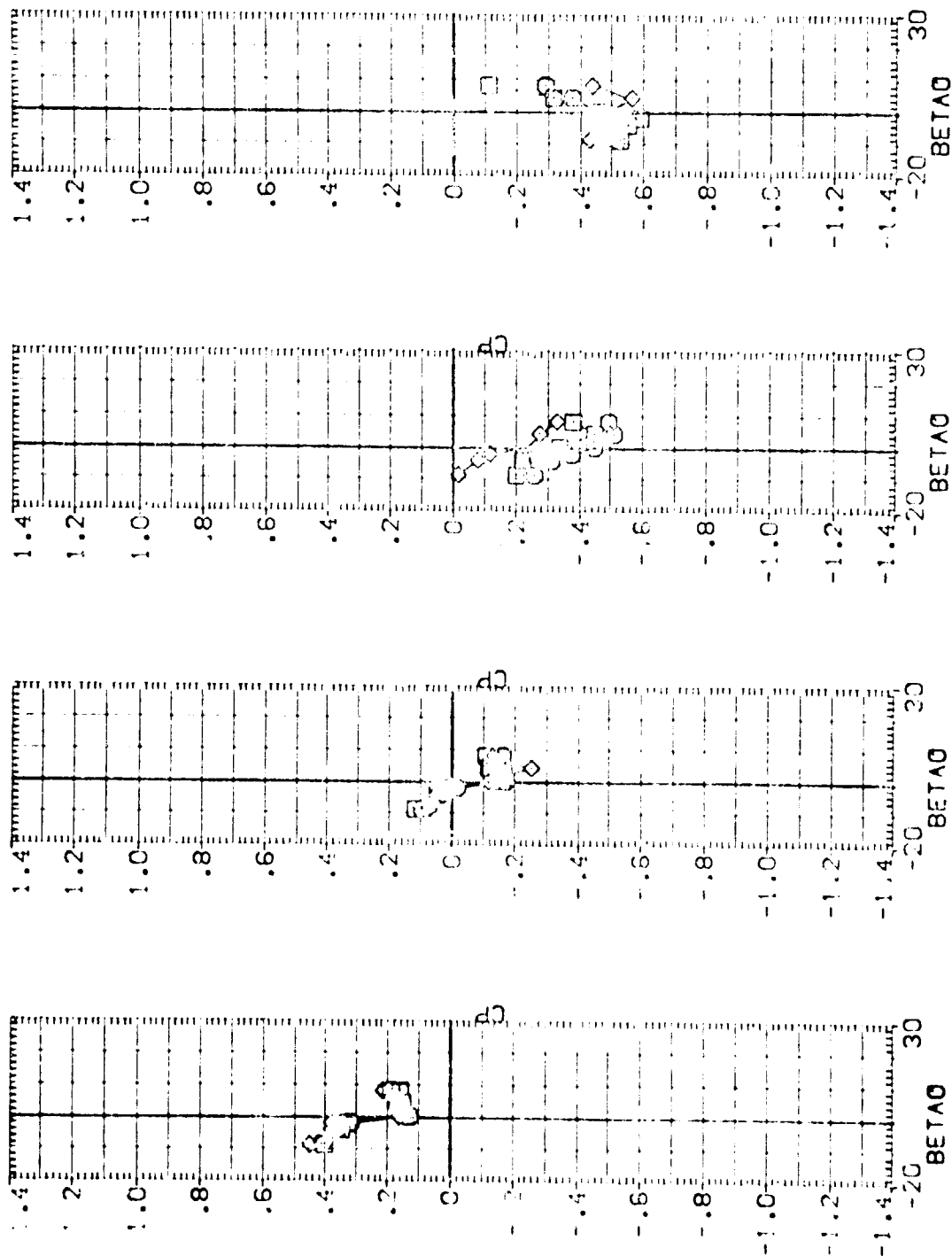
ARC11-716 1A14 01+T12+S12N25+A110 ORB ATTACH PTS(RB1133)

SYMBOL

V/BV X/LB ALPHA0  
 -.043 .827 -.730  
 -.021 .805  
 .000 .850  
 .858

PARAMETRIC VALUES  
 1.250 ELEVON .000  
 .000 SPOILER .000

HACH  
 RUDDER



ORBITER ATTACH POINTS PRESSURES

APC11-716 1A14 01+T12+S12N25+AT10 GR8 ATTACH P'S(RB1133)

SYMBOL

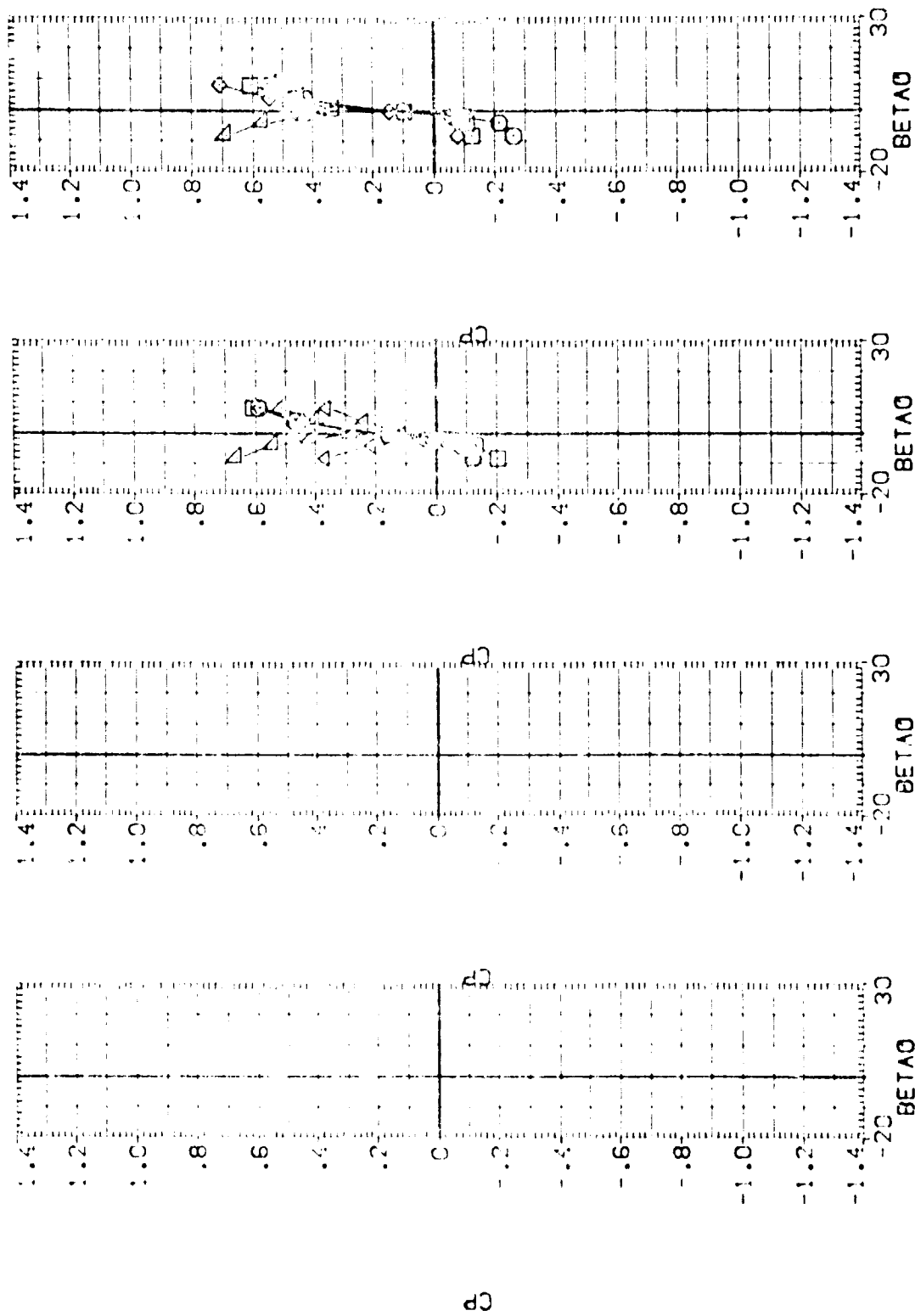
Y/BV  
-1.277  
-1.256  
-1.234  
-1.213  
-1.192

X/LB  
.125  
.133  
.811  
.819

ALPHA  
4.300

PARAMETRIC VALUES  
1.250 ELEVON .000  
.000 SPOBRK .000

MACH  
RUDDER



ORBITER ATTACH POINTS PRESSURES

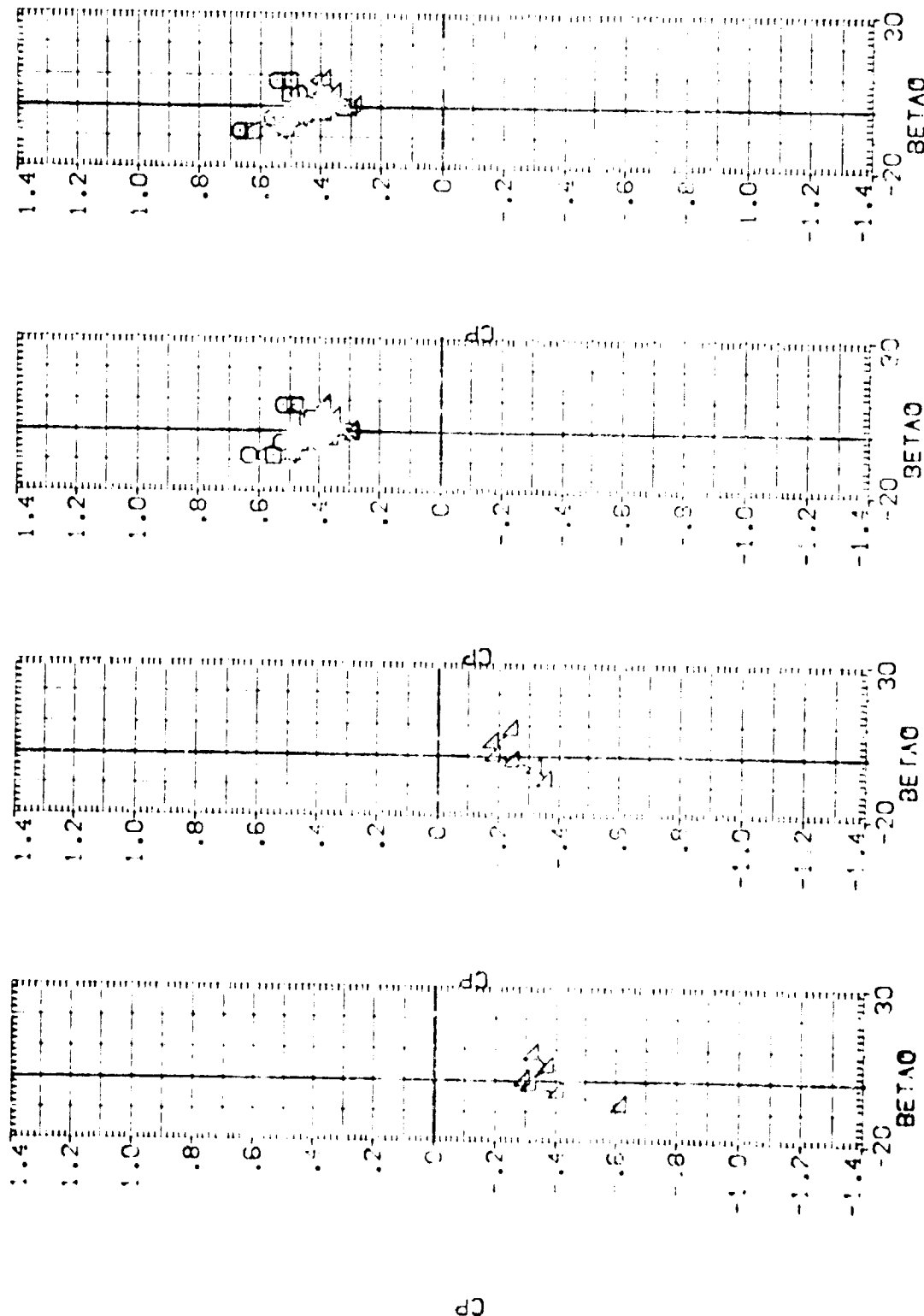


ARC11-716 1A14 01+112+S12N25+AT10 CRB ATTACH PIS(RB1133)

SYMBOL

Y/BV X/LB ALPHA0  
 -.170 .126 4.300  
 -.149 .133  
 -.107 .811  
 -.085 .819  
 -.064

PARAMETRIC VALUES  
 1.250 ELEVON .000  
 .000 SPOILER .000



ORBITER ATTACH POINTS PRESSURES

ARC11-710 1A14 01+112+S12N25+A110 ORB ATTACH PTS(RB1133)

SYMBOL

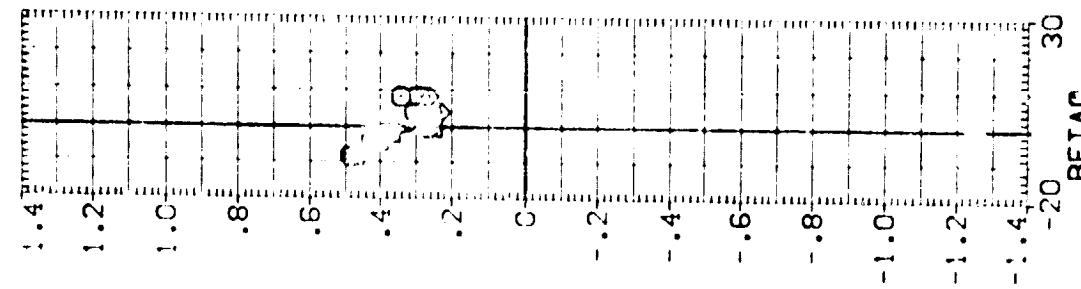
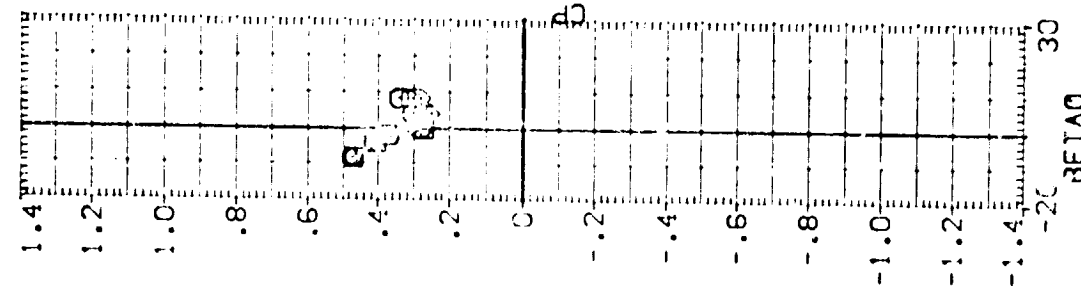
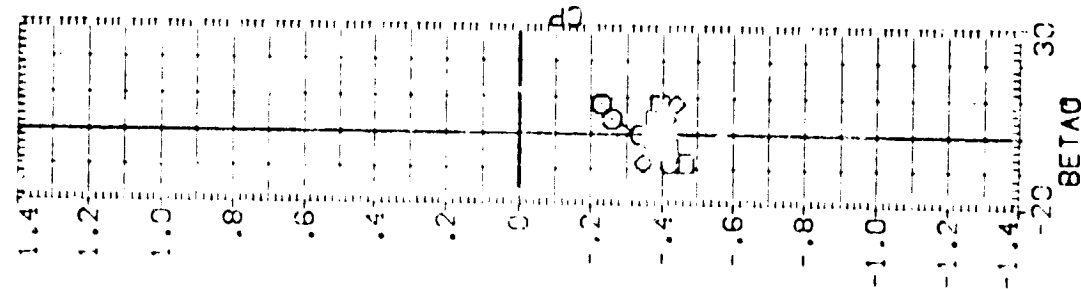
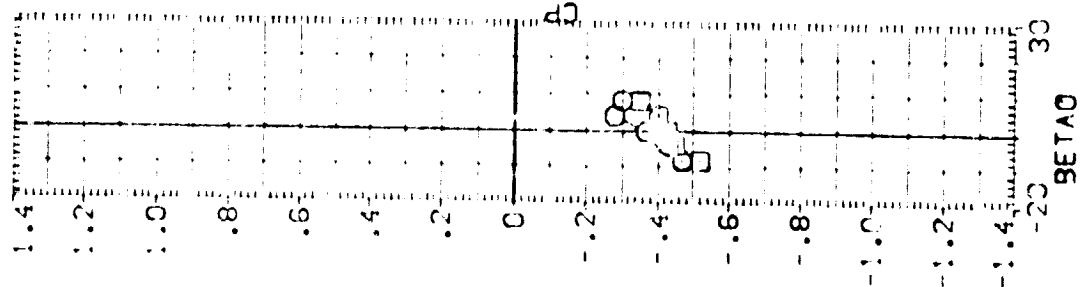
Y/BV X/LB ALP/AD

-0.043  
-0.021  
.000

.126  
.130  
.811  
.819

MACH  
RUDDER

P. METRIC VALUES  
1.250 ELEVON .000  
.000 SPOORX .000



ORBITER ATTACH POINTS PRESSURES

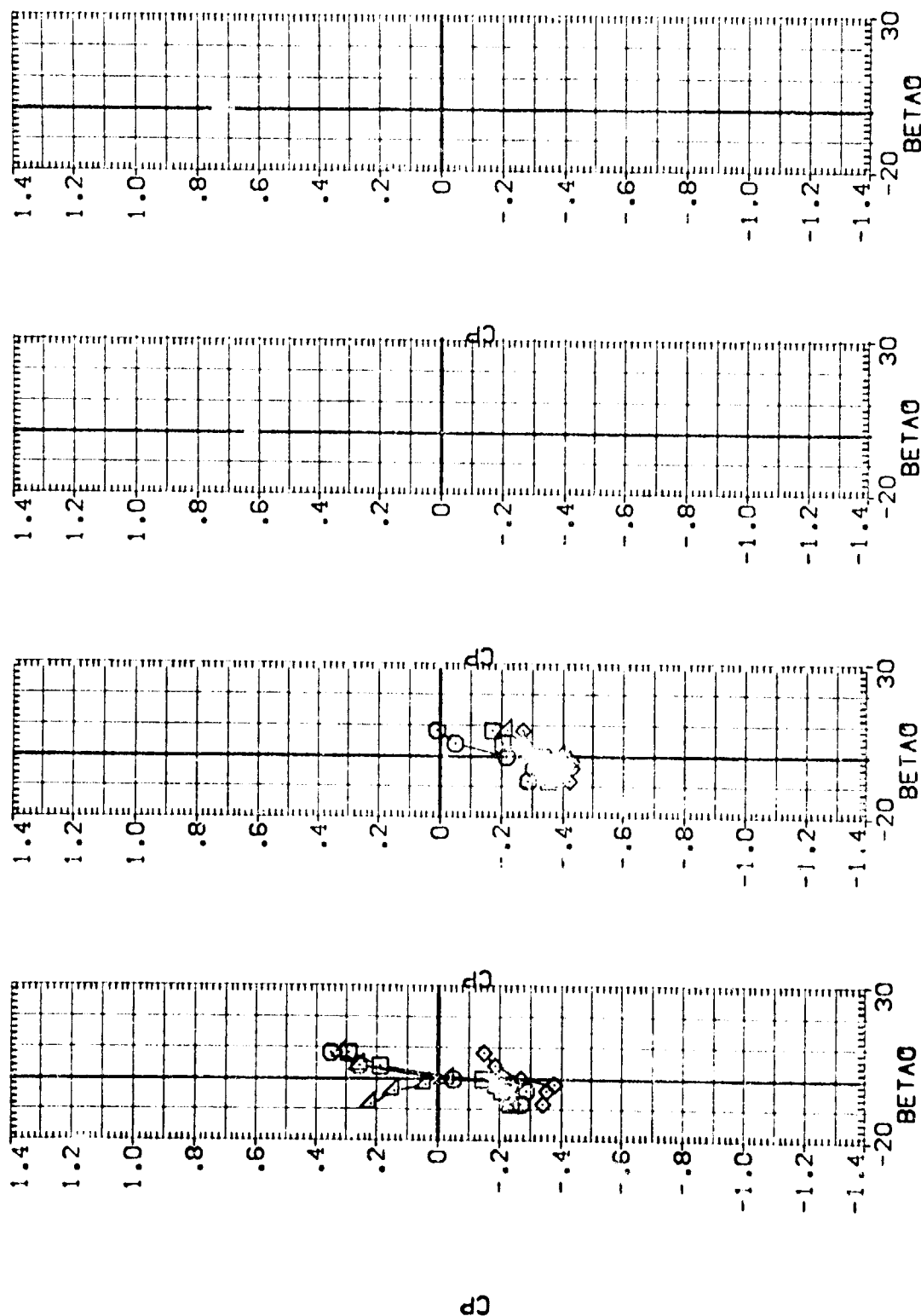
ARC11-716 1A14 01+T12+S12N25+AT10 ORB ATTACH PTS(RB1133)

SYMBOL  
 ○ □ ◇ △

Y/BV X/LB ALPHA0  
 -.277 .827 4.300  
 -.256 .835  
 -.234 .850  
 -.213 .858  
 -.192

PARAMETRIC VALUES  
 1.250 ELEVYN .000  
 .000 SPOBRK .000

MACH  
 RUDDER



ORBITER ATTACH POINTS PRESSURES

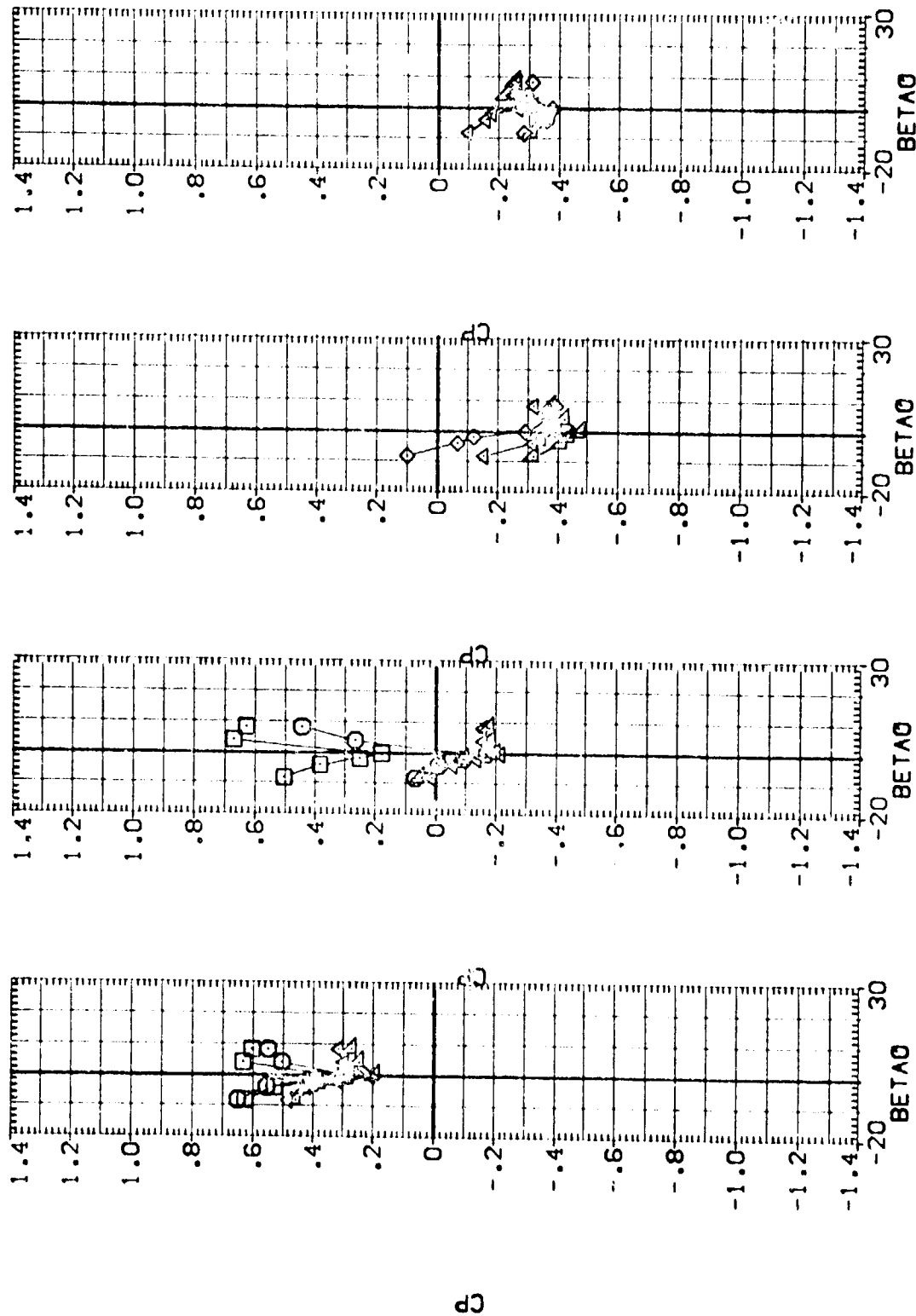
ARC11-716 1A14 01+T12+S12N25+AT10 ORB ATTACH PTS(RB1133)

SYMBOL  
 ○ □ ◇ △

Y/BV X/LB ALPHA0  
 -.170 .827 4.300  
 -.149 .835  
 -.107 .850  
 -.085 .858  
 -.064

PARAMETRIC VALUES  
 1.250 ELEVON .000  
 .000 SPOBRK .000

MACH  
 RUDDER



ORBITER ATTACH POINTS PRESSURES

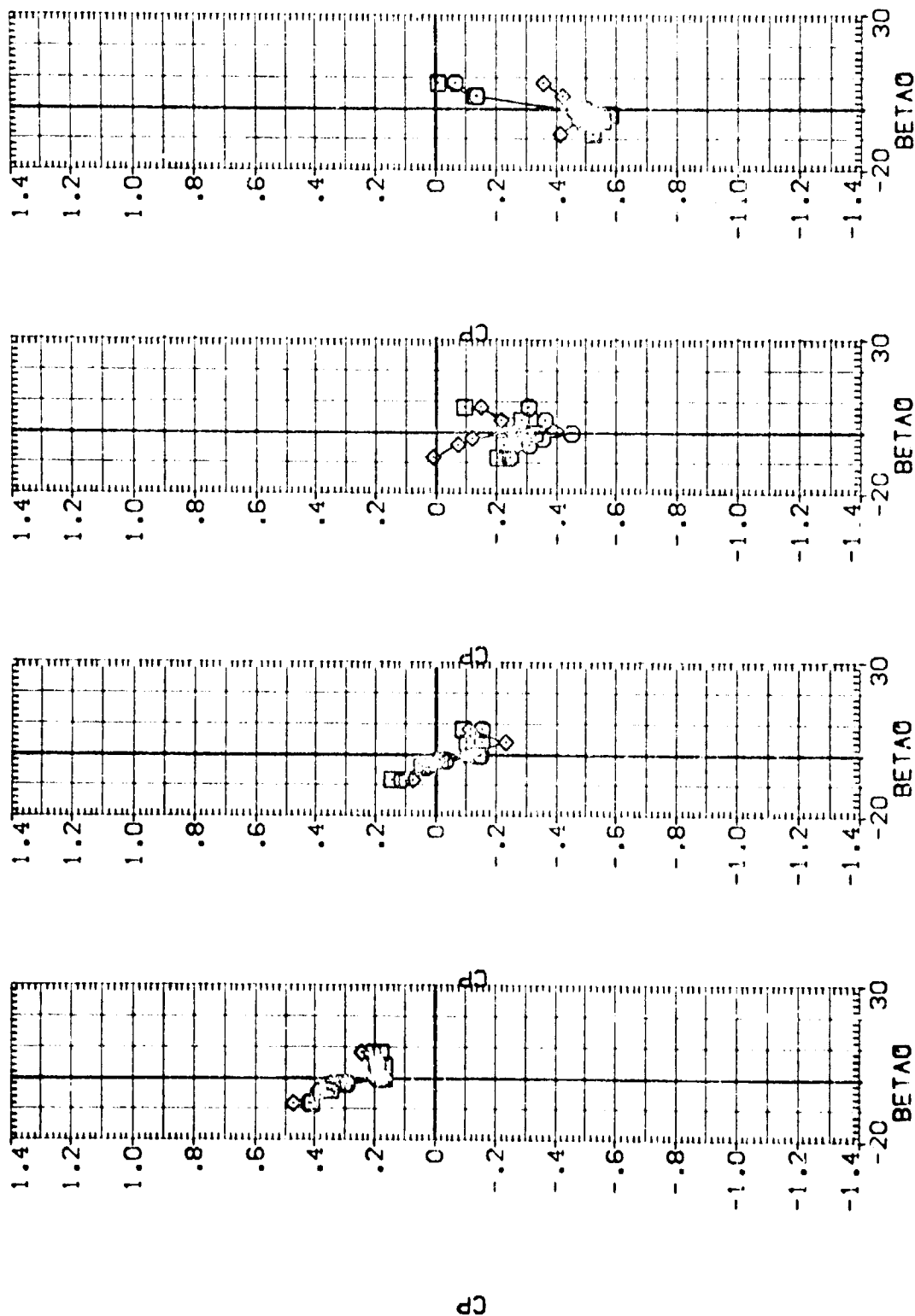
ARC11-716 1A14 01+T12+S12N25+AT10 ORB ATTACH PTS(RB1133)

SYMBOL  
 ○ □ ◇

Y/BV X/LB ALPHAQ  
 -.043 .827 4.300  
 -.021 .835  
 .000 .850  
 .858

PARAMETRIC VALUES  
 1.250 ELEVON .000  
 .000 SPDBRK .000

MACH  
 RUDDER



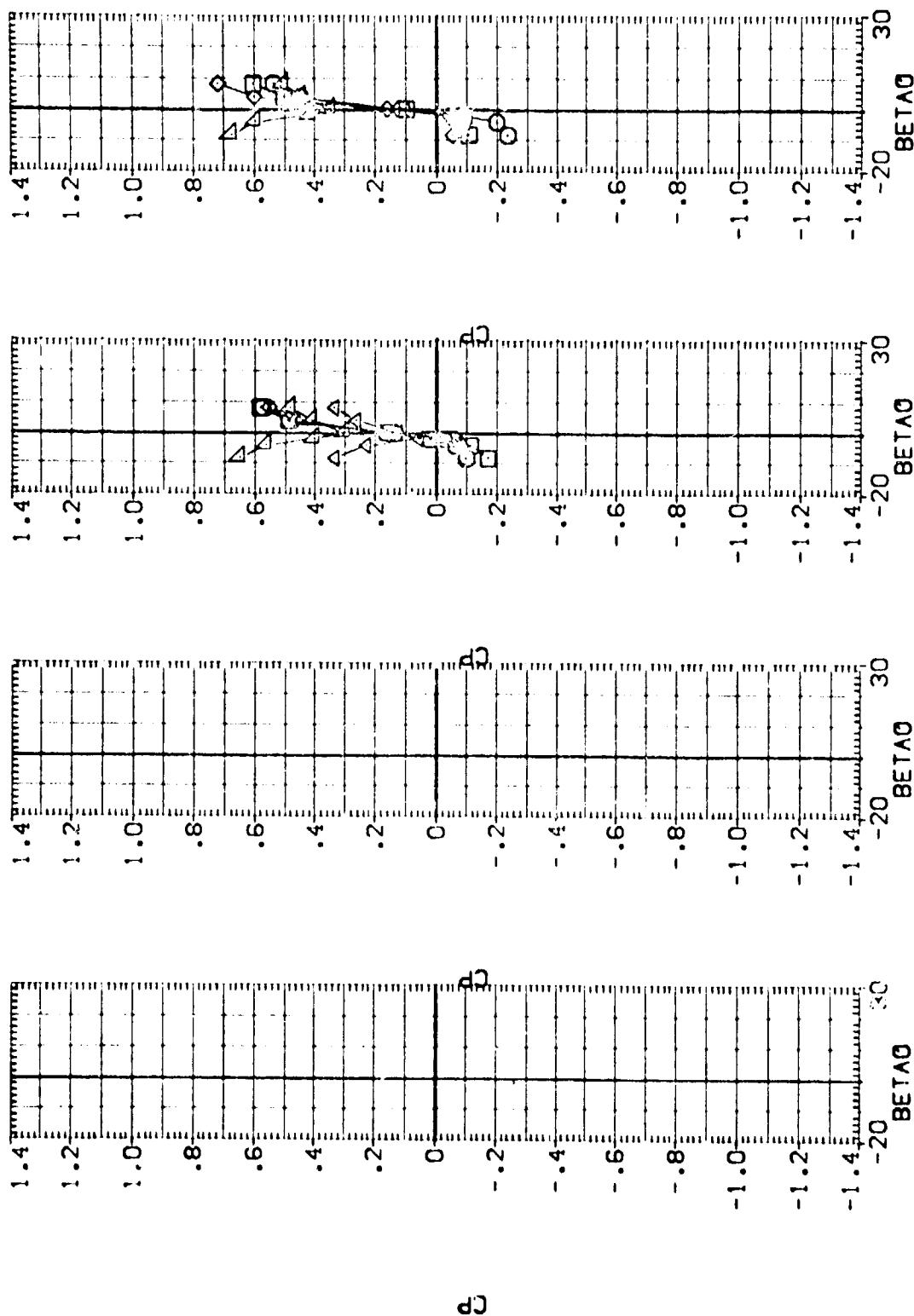
ORBITER ATTACH POINTS PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 ORB ATTACH PTS(RB1133)

SYMBOL  
 O □ △ ◇

Y/BN X/LB ALPHA0  
 -.277 .126 7.910  
 -.256 .133  
 -.234 .811  
 -.213 .819  
 -.192

PARAMETRIC VALUES  
 1.250 ELEVON .000  
 .000 SPOBRK .000  
 MACH  
 RUDDER



ORBITER ATTACH POINTS PRESSURES

ARC11-716 1A14 01+112+S12N25+AT10 ORB ATTACH PTS(RB1133)

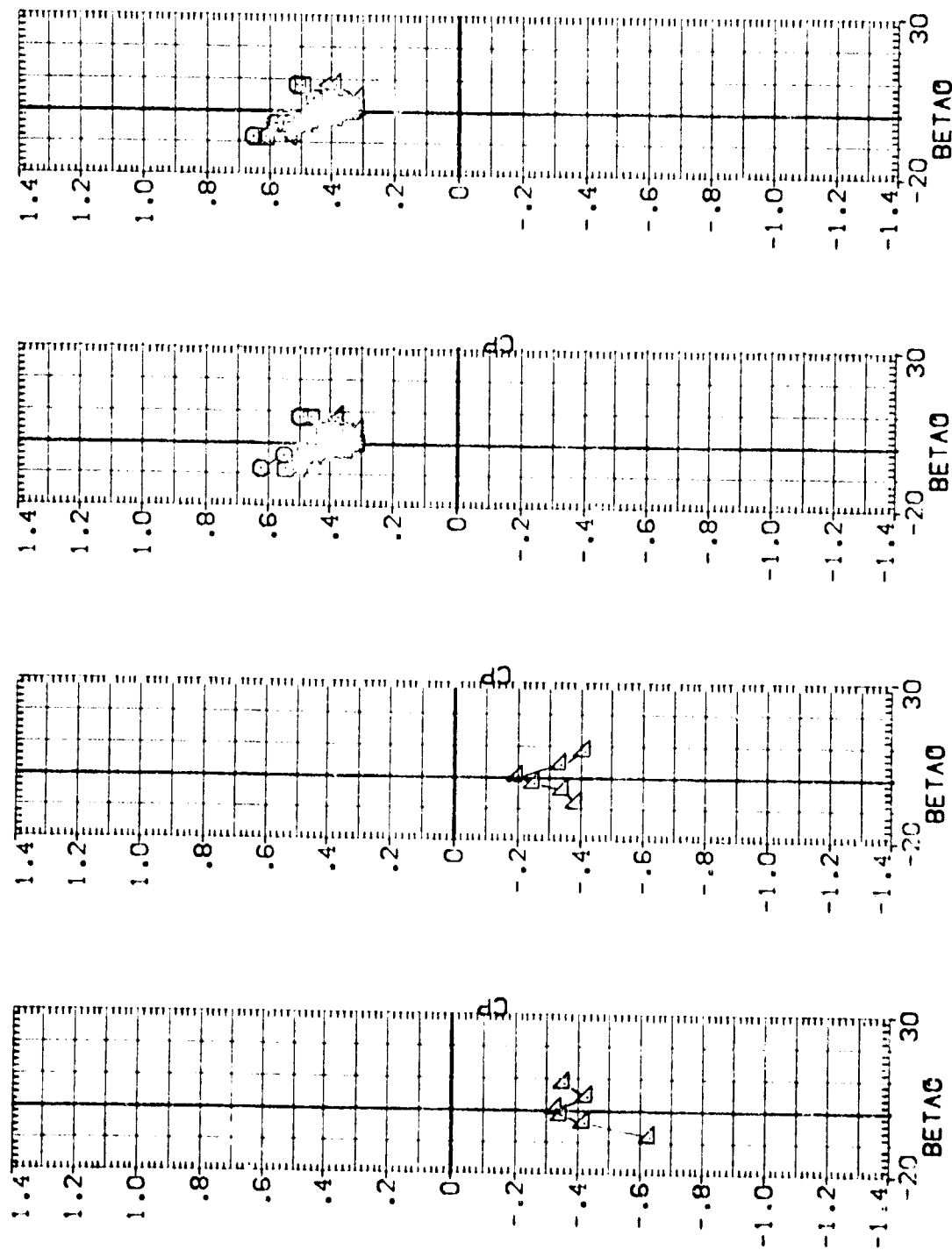
SYMBOL

V/BV X/LB ALPHA0  
 -.170 .126 7.910  
 -.149 .133  
 -.107 .811  
 -.055 .919  
 -.064

PARAMETRIC VALUES

1.250 ELEVON .000  
 .000 SPOORX .000

MACH  
 RUDDER



ORBITER ATTACH POINTS PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 ORB ATTACH PTS(RB1133)

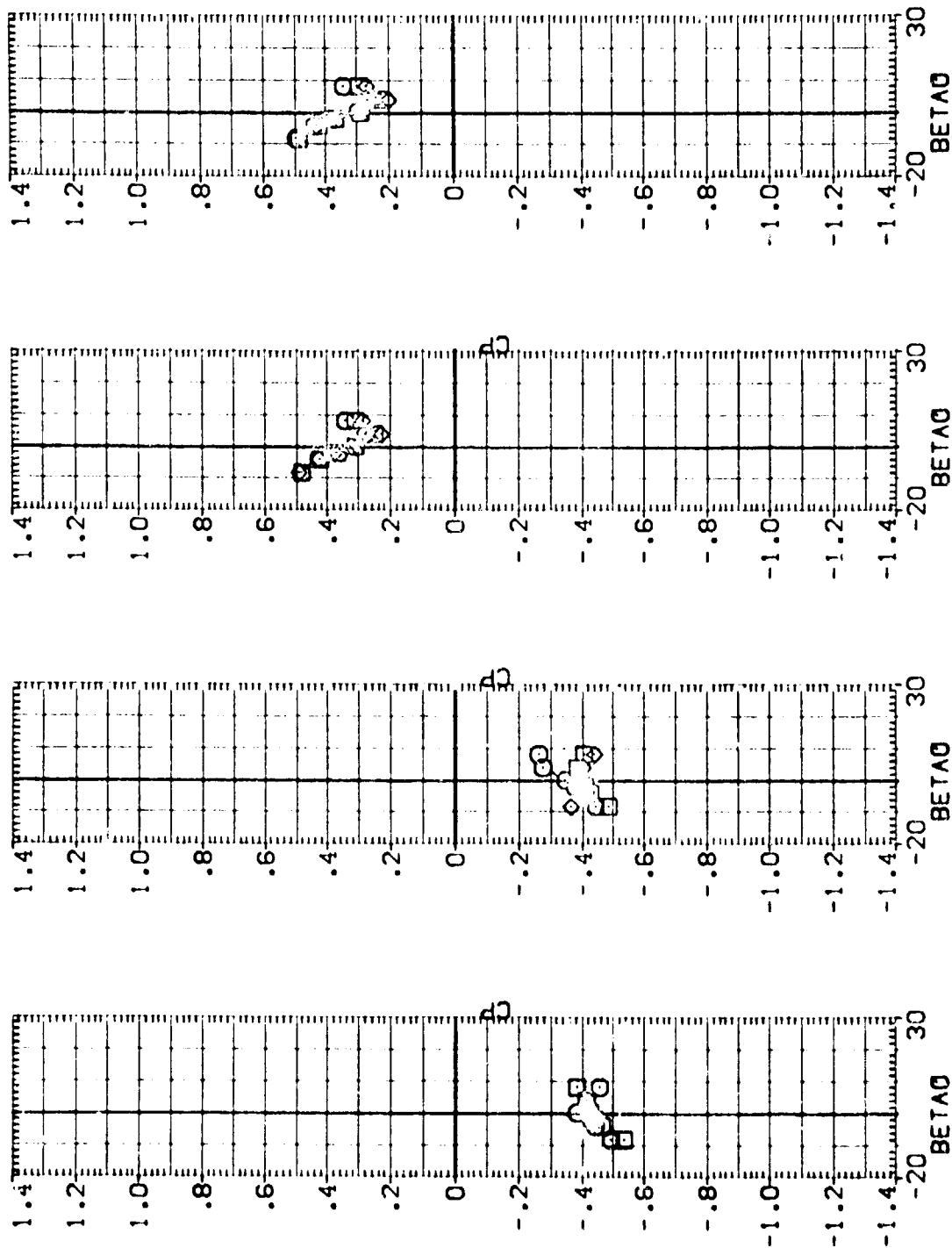
SYMBOL

○ □ ◇

Y/BV X/LB ALPHA0  
 -.043 .126 7.910  
 -.021 .133  
 .000 .811 .819

PARAMETRIC VALUES  
 1.250 ELEVON .000  
 .000 SPOBRK .000

MACH  
 RUDDER



ORBITER ATTACH POINTS PRESSURES



ARC11-716 1A14 01+112+S12N25+AT10 ORB ATTACH PTS(RB1133)

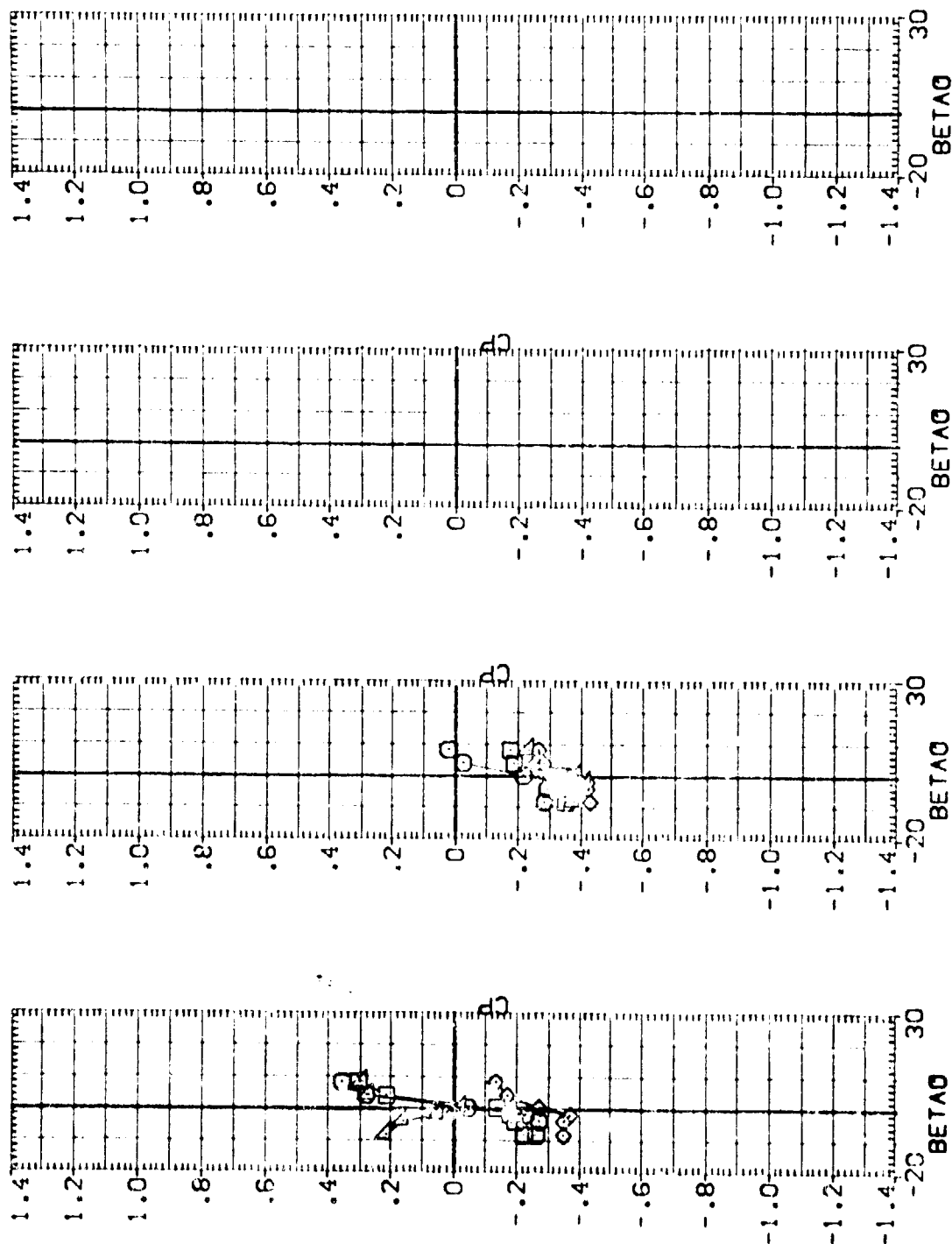
SYMBOL

□ □ ◇ △

Y/BV	X/LB	ALPHA
-.277	.827	7.910
-.256	.836	
-.234	.850	
-.213	.858	
-.192		

PARAMETRIC VALUES  
1.250 ELEVON .000  
.000 SPOILER .000

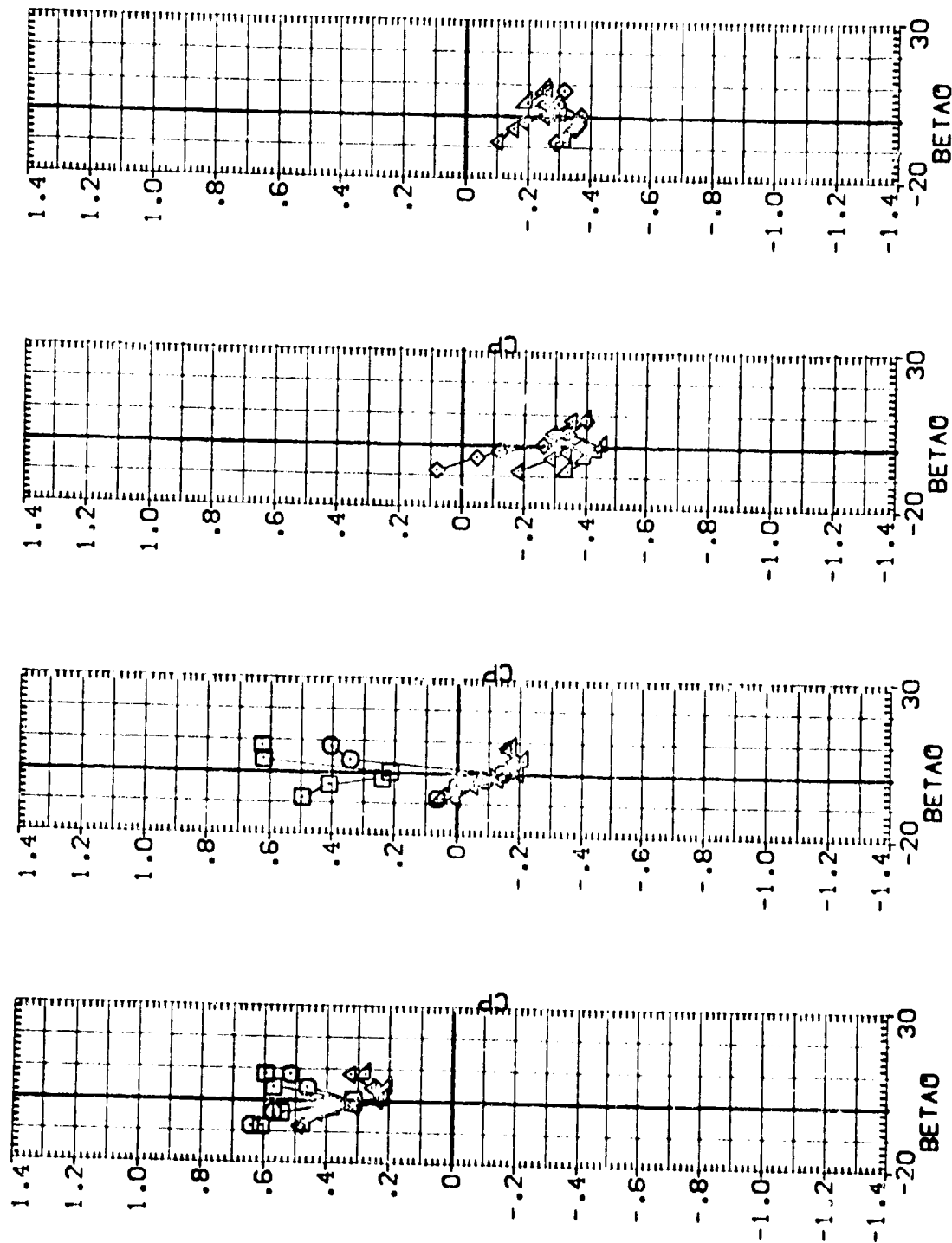
MACH  
RUDDER



ORBITER ATTACH POINTS PRESSURES

ARC11-716 IA14 01+T12+S12N25+AT10 ORB ATTACH PTS(RB1133)

SYMBOL	Y/BV	X/LB	ALPHA-0	PARAMETRIC VALUES		
				1.250	ELEVON	.000
○	-.170	.827	7.910	.000	SPDRK	.000
□	-.149	.835				
◇	-.107	.850				
△	-.085	.858				
▽	-.054					



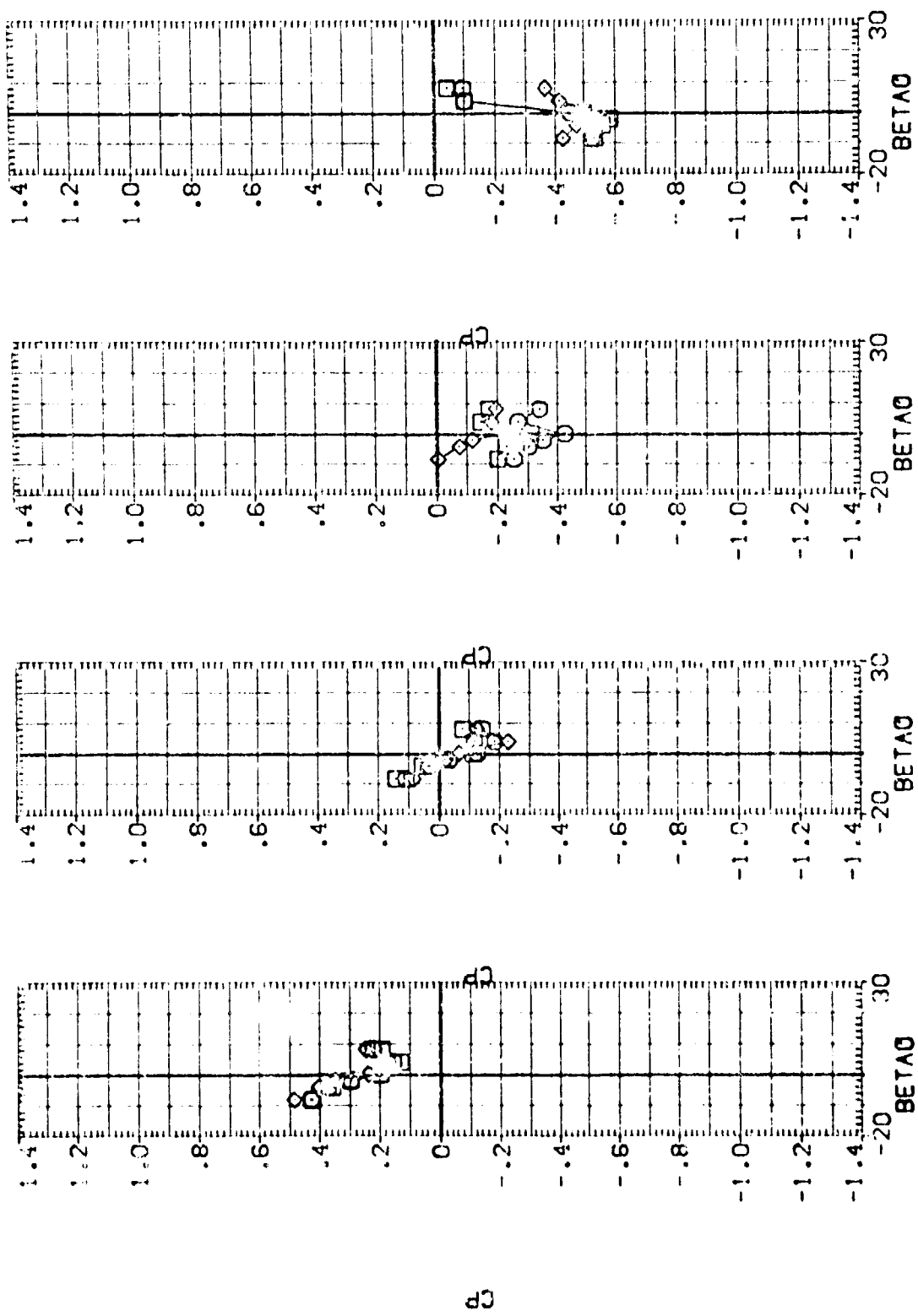
ORBITER ATTACH POINTS PRESSURES

ARC11-716 1A14 01-T12+S12N25+AT10 ORB ATTACH PIS(RB1133)

PARAMETRIC VALUES  
 1.250 ELEVON .000  
 .000 SPOBRK .000

MACH  
 RUDDER

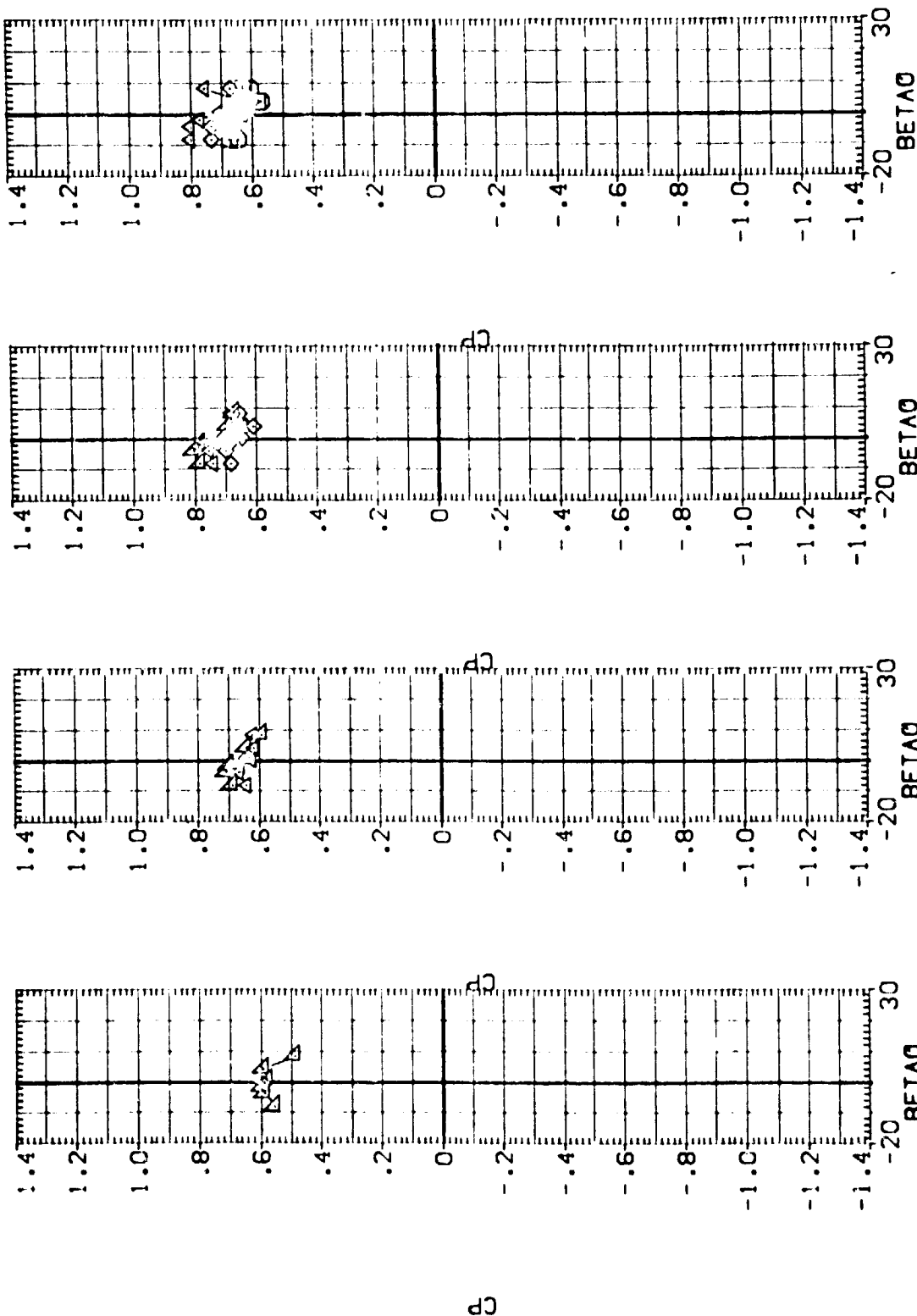
SYN-02 X/LB ALPMAO  
 -.043 .827 7.910  
 -.021 .835  
 .000 .850  
 .858



ORBITER ATTACH POINTS PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 ET ATTACH PTS. (RB1233)

SYMBOL	PHI	X/LT	ALPHA	PARAMETRIC VALUES		
				MACH	ELEVON	SPDBRK
□	182.840	.391	-8.220	RUDDER	.000	.000
◇	185.380	.397			.000	.000
△	189.920	.402				
▽	193.460	.408				
◇	197.000					

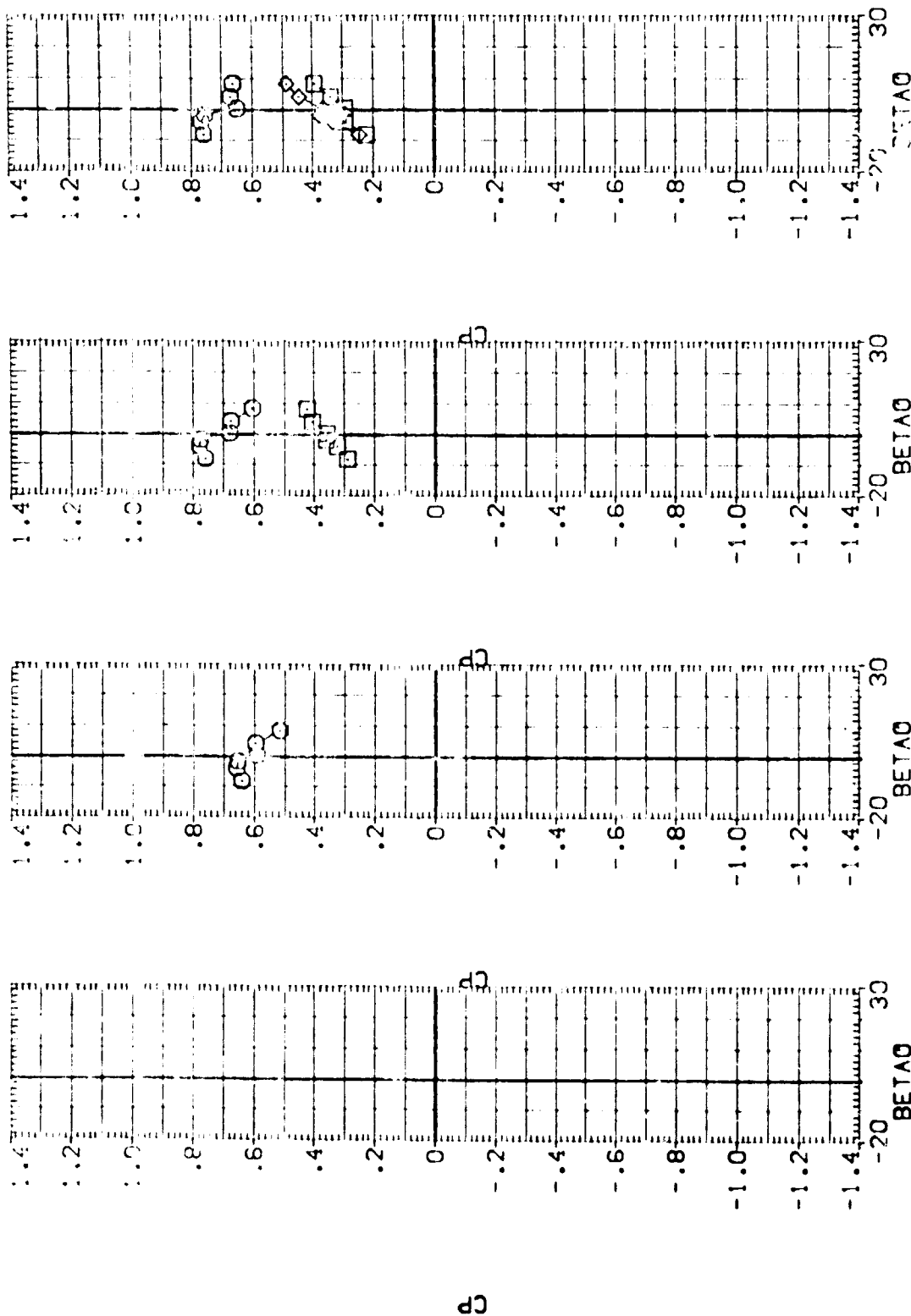


EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 ET ATTACH PTS. (RB1233)

SYMBOL PH: X/LT ALPHA0  
 011011 200.540 .391 -8.220  
 204.090 .397  
 207.620 .402  
 222.840 .408  
 230.380

PARAMETRIC VALUES  
 1.250 ELEVON .000  
 .000 SPOBRN .000  
 MACH  
 RUDDER



EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11-716 1A14 01+112+S12N25+AT10 ET ATTACH PTS. (RB1233)

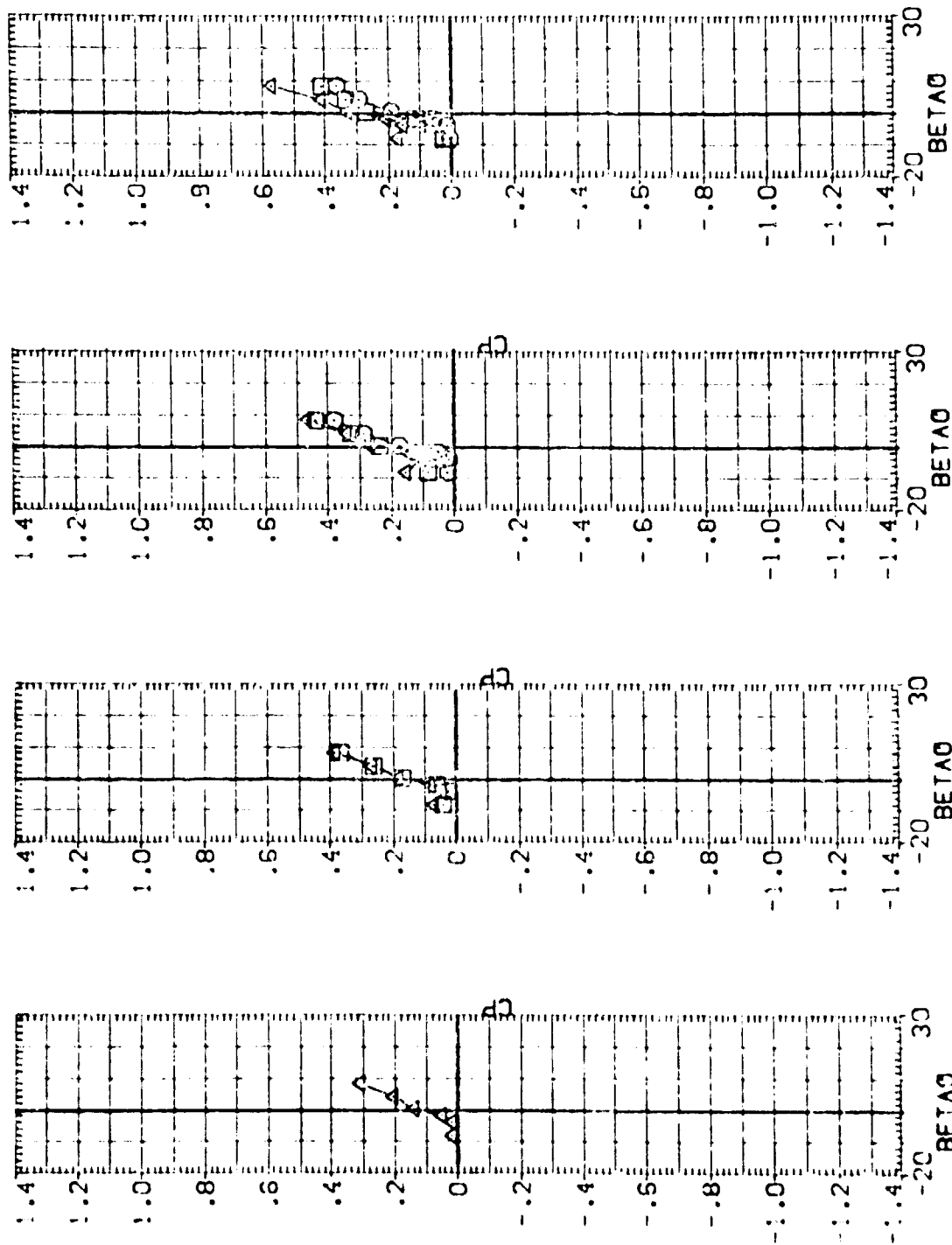
PARAMETRIC VALUES  
1.250 ELEVON  
.000 SPOBRK

MACH  
NUMBER

ALPHA0  
-8.220

X/L1  
.607  
.812  
.818  
.823

SYMBOL  
011041



EXTERNAL TANK ATTACH POINTS PRESSURES

ARC:11-716 1A14 01+112+S12+25+AT10 ET ATTACH PIS. (RB1233)

PARAMETRIC VALUES  
 1.250 ELEV: .000  
 .000 SPOOR .000

MACH  
 RUOER

ALPHA0

K/LT

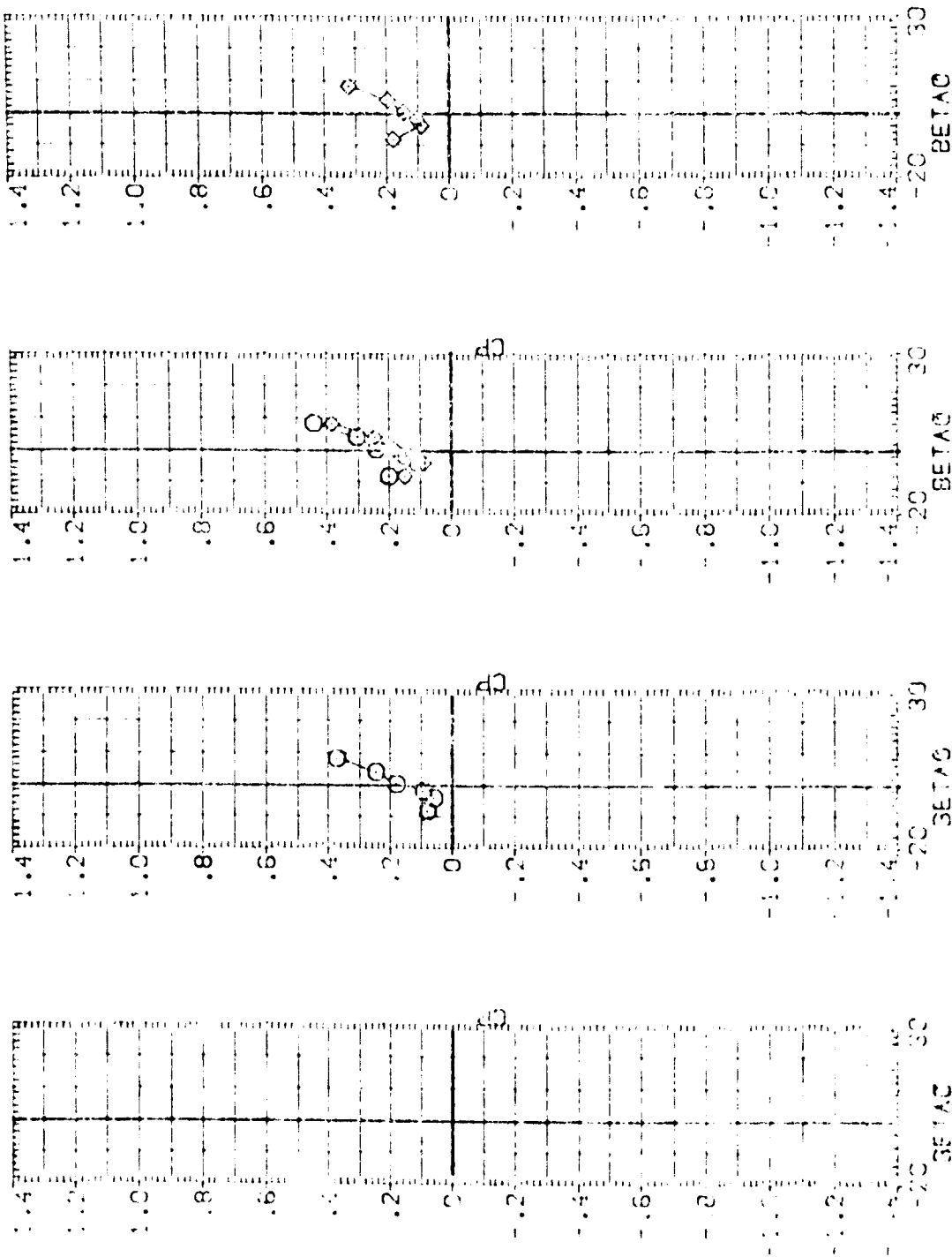
PHI

SYMBOL

240.540  
 241.125  
 241.000  
 244.550  
 248.200

.807  
 .812  
 .818  
 .823

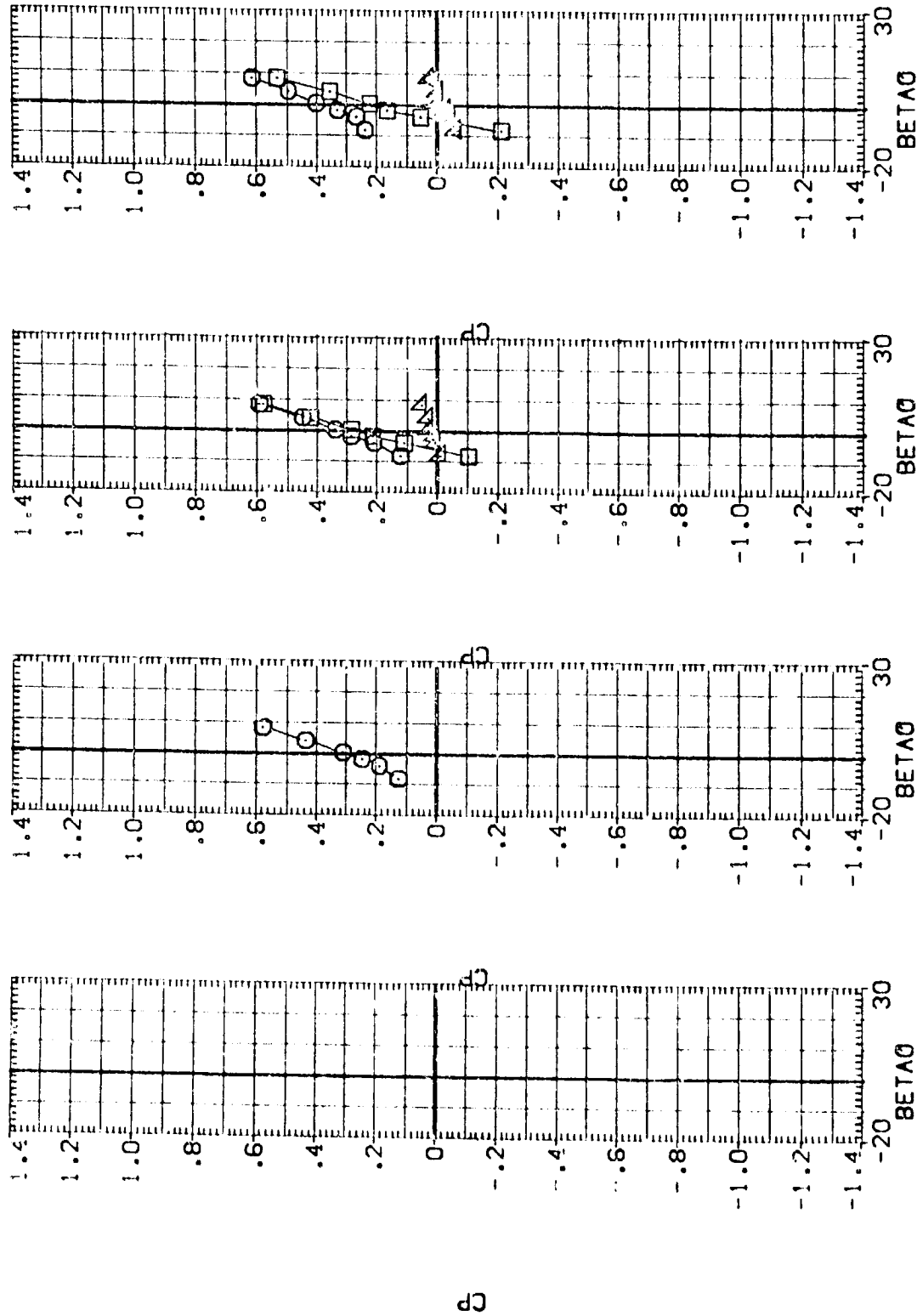
-81.220



EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 ET ATTACH PTS.(RB1233)

SYMBOL	P/H	X/LT	ALPHA0	PARAMETRIC VALUES		
				MACH	ELEVON	SPDRK
	251.740	.916	-8.220	RUDDER	.000	.000
	255.280	.921				
	323.510	.927				
	327.050	.932				
	330.590					



EXTERNAL TANK ATTACH POINTS PRESSURES



ARC11-716 1A14 01+T12+S12N25+AT10 E1 ATTACH P1S. (RB1233)

SYMBOL

PHI

X/LT

ALPHA

334.130  
337.670  
341.210  
344.750

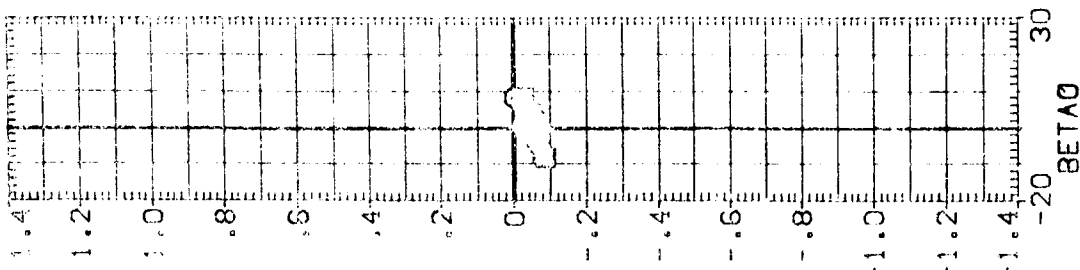
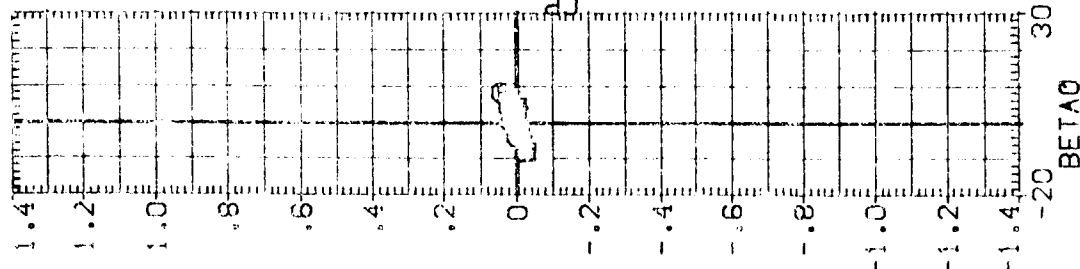
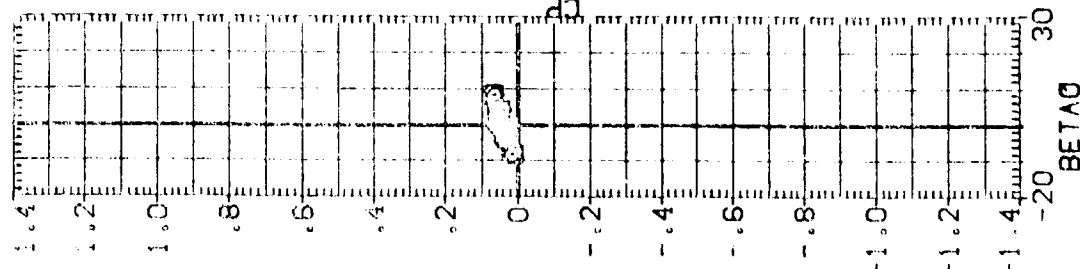
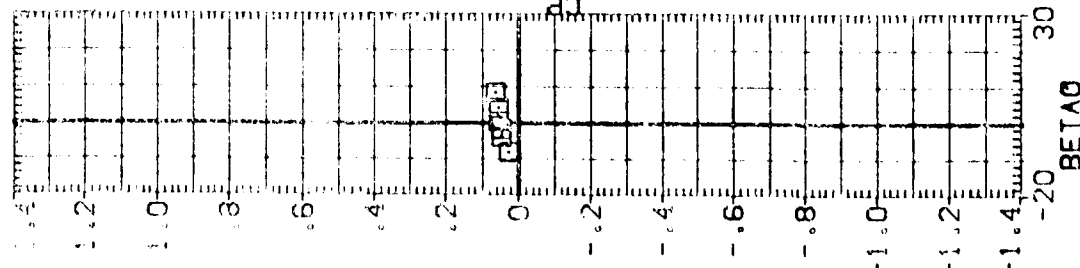
.916  
.921  
.927  
.932

-8.220

PARAMETRIC VALUES

1.250 ELEVON  
.000 SPOBRK  
.000

HACH  
RUDDER



EXTERNAL TANK ATTACH POINTS PRESSURES



ARC11-716 1A14 01+T12+S12N25+AT10 ET ATTACH PTS. (RB1233)

SYMBOL

PHI

X/LT

ALPHA

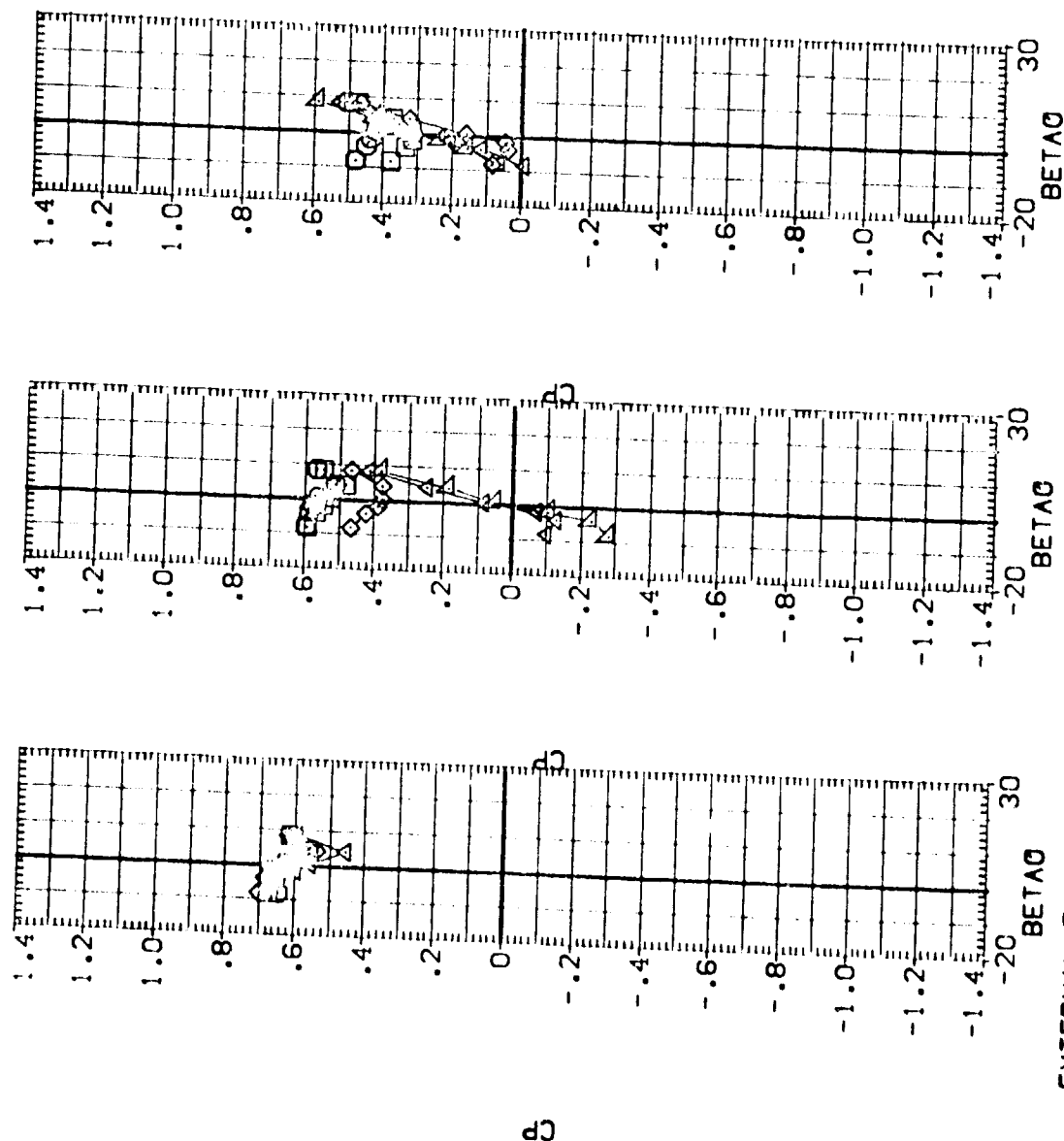
182.840  
186.380  
189.920  
193.460  
197.000

.413  
.419  
.424

-8.220

PARAMETRIC VALUES

MACH  
RUDDER  
1.250  
.000  
ELEVON  
SPOBRK  
.000  
.000



EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11-716 IA14 01+T12+S12N25+AT10 ET ATTACH PTS. (RB1233)

PARAMETRIC VALUES  
1.250 ELEVON  
.000 SPOBRK  
.000

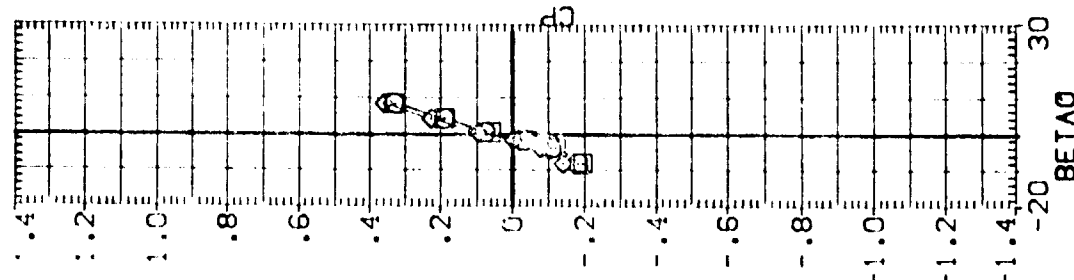
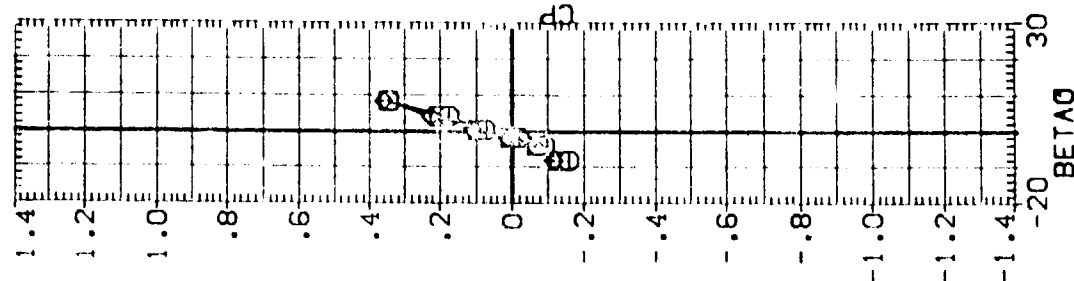
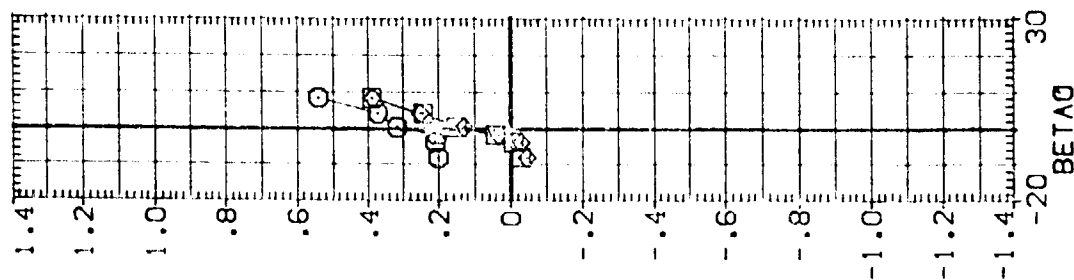
MACH  
RUDDER

ALPHA0  
-8.220

X/LT  
.413  
.419  
.424

PHI  
200.540  
204.080  
207.620  
222.840  
226.360

SV400  
011044

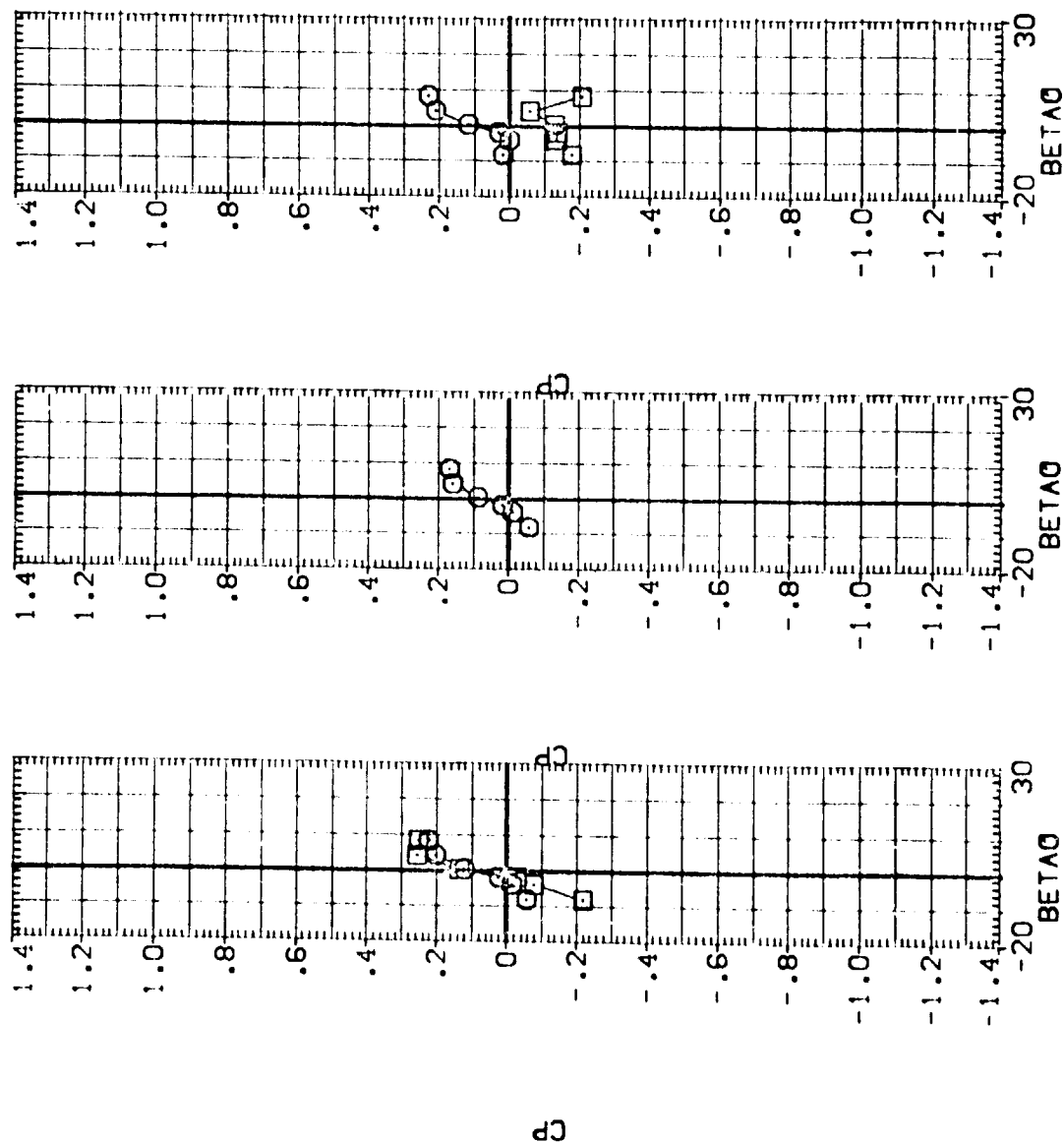


Cp

EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11-716 IA14 01+T12+S12N25+AT10 ET ATTACH PTS. (RB1233)

SYMBOL	PHI	X/LT	ALPHA	PARAMETRIC VALUES		
				MACH	ELEVON	SPOBRK
○	229.920	.828	-8.220	1.250	.000	.000
□	233.160	.834		.000		
◇	234.040	.839				
△	237.000					
▽	237.580					

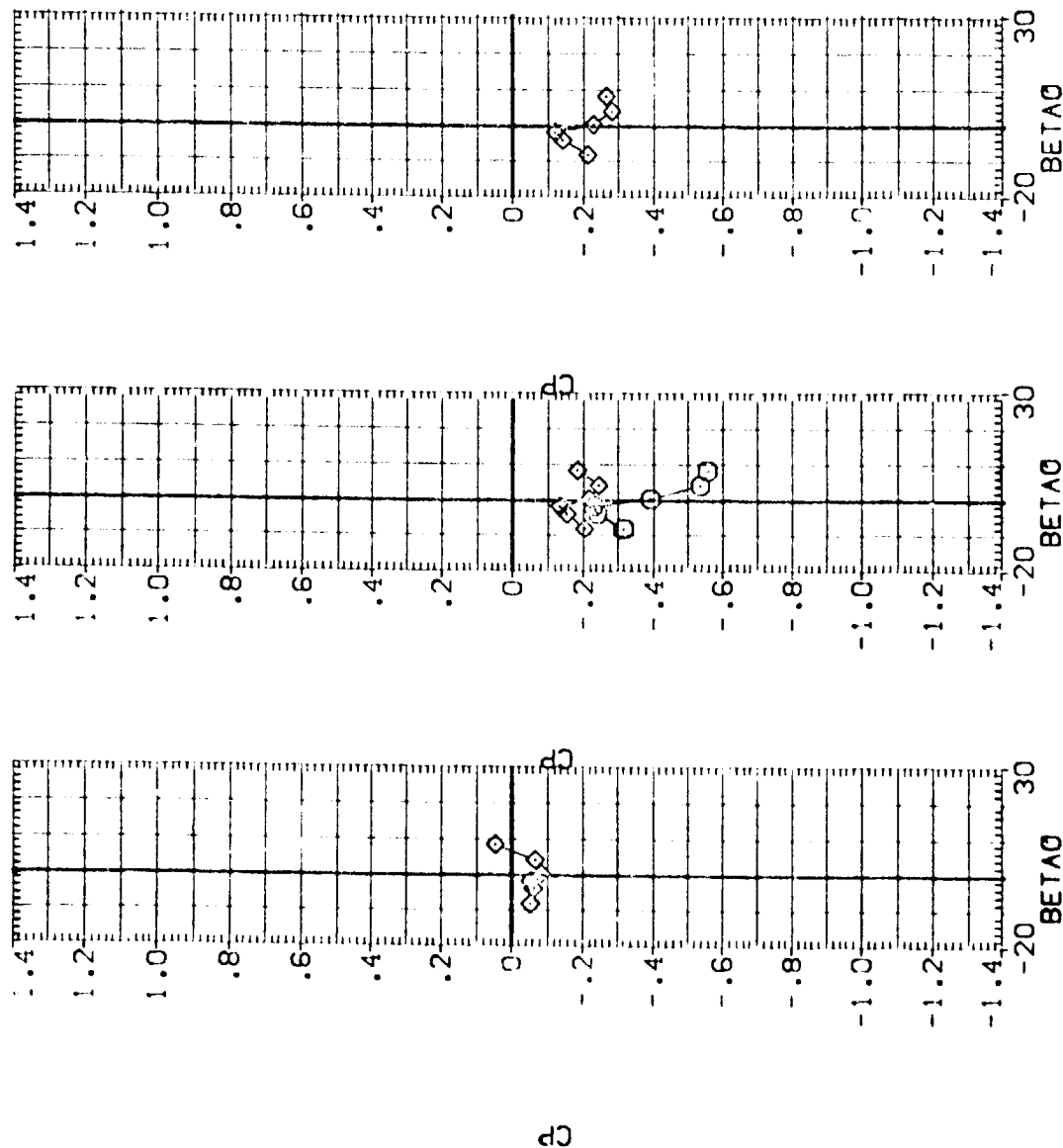


EXTERNAL TANK ATTACH POINTS PRESSURES

ARC:1-716 1A14 01+T12+S12N25+AT10 ET ATTACH PTS. (RB1233)

PARAMETRIC VALUES  
MACH 1.250 ELEVON .000  
RUDDER .000 SPOBRK .000

SYMBOL PHI X/LT ALPHA0  
240.540 .828 -8.220  
241.120 .821  
244.080 .809  
244.660  
248.200



EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11-7:16 1A14 01+T12+S12N25+AT10 ET ATTACH PTS. (RB1233)

PARAMETRIC VALUES  
 1.250 ELEVON  
 .000 SPOBRK  
 .000

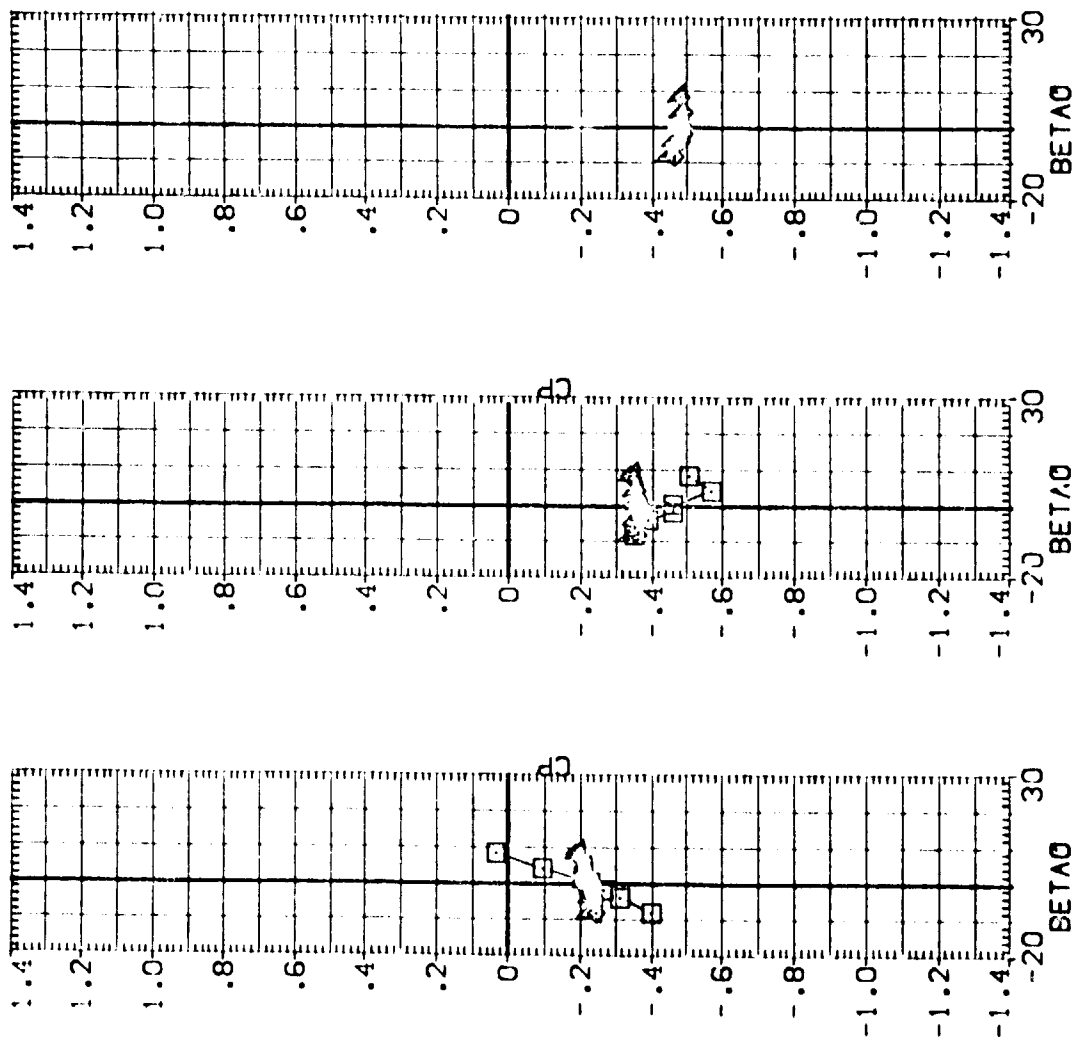
MACH  
 RUDDER

PHI  
 .938  
 .943  
 .948

ALPHA  
 -8.220

X/LT  
 .938  
 .943  
 .948

SYMBOL  
 O  
 □  
 ◇  
 △  
 4  
 1



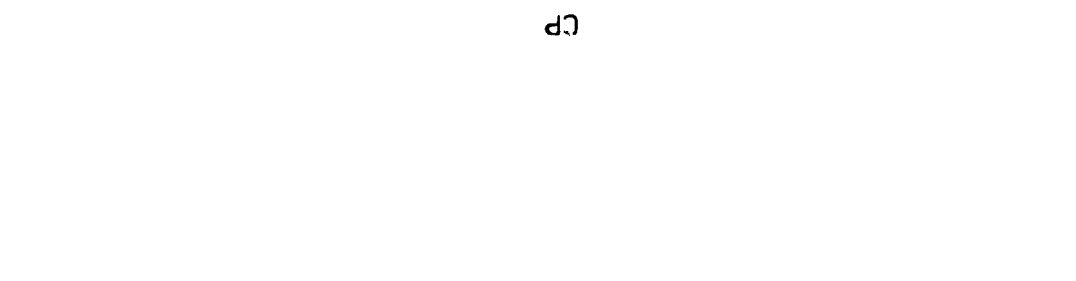
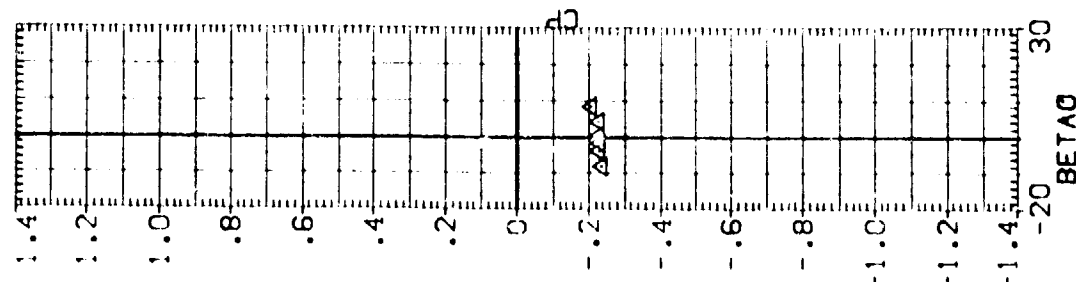
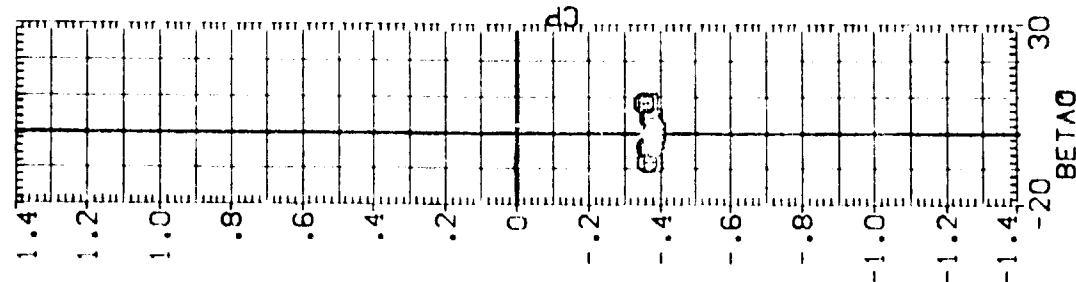
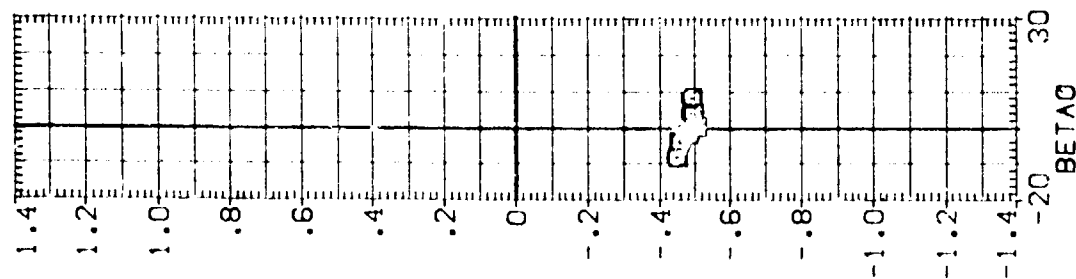
EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11-716 1A14 31+T12+S12N25+AT10 ET ATTACH PTS. (RB1233)

PARAMETRIC VALUES  
 1.250 ELEVON  
 .000 SPOBRK  
 .000

MACH  
 RUDDER

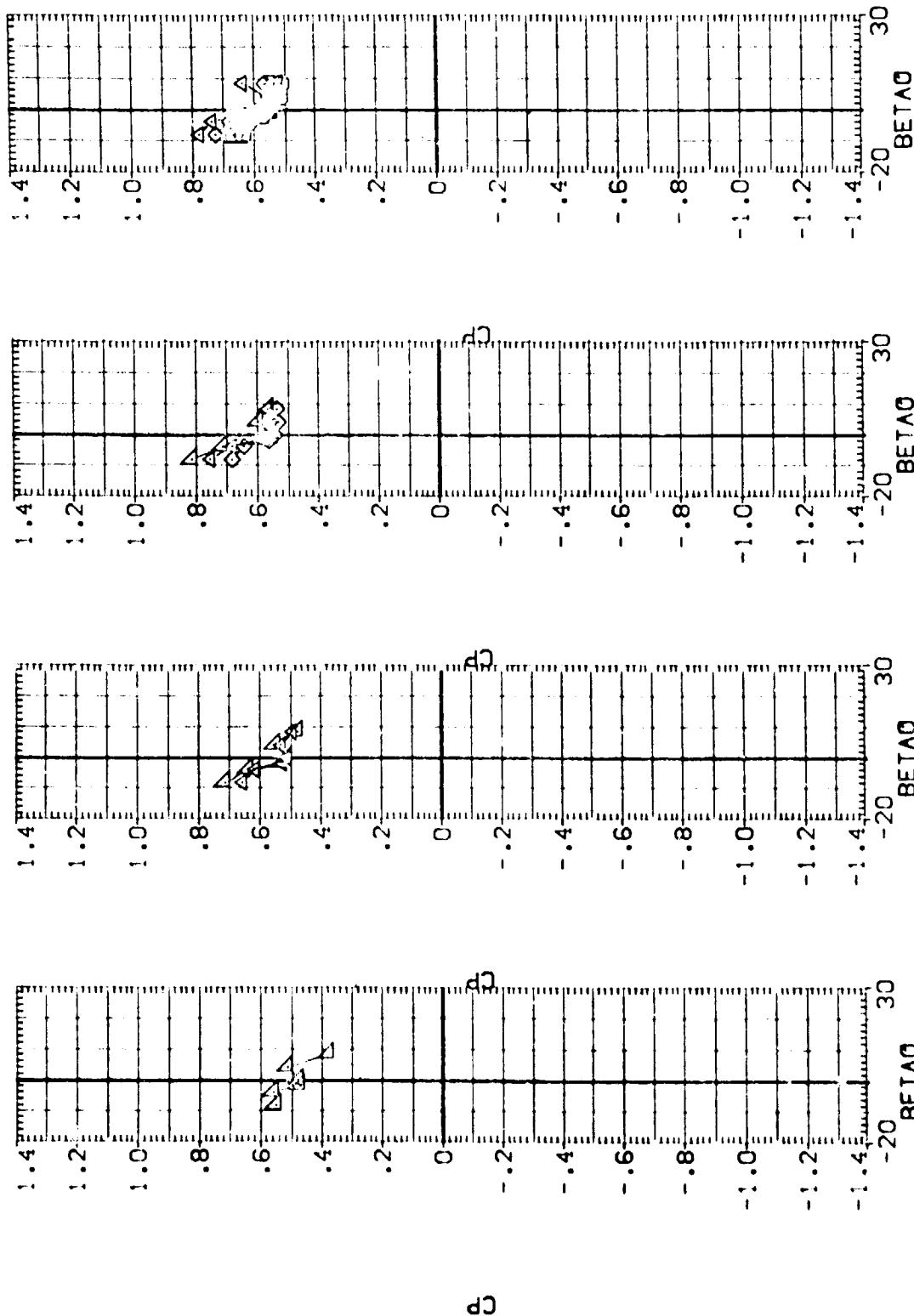
SYMBOL PH1 X/LT ALPHA0  
 334.130 .938 -8.220  
 337.670 .943  
 341.210 .948  
 344.750



EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11-716 1A14 01+112+S12N25+AT10 ET ATTACH PTS. (RB1233)

SYMBOL	PHI	X/LT	ALPHA0	PARAMETRIC VALUES		
				MACH	ELEVON	SPDBRK
○	182.840	.391	-4.200	.000	.000	.000
□	186.380	.397				
◇	189.920	.402				
△	193.460	.408				
▽	197.000					



EXTERNAL TANK ATTACH POINTS PRESSURES



ARC11-716 1A14 01+T12+S12N25+AT10 ET ATTACH PTS. (RB1233)

PARAMETRIC VALUES  
1.250 ELEVON .000  
.000 SPOBRK .000

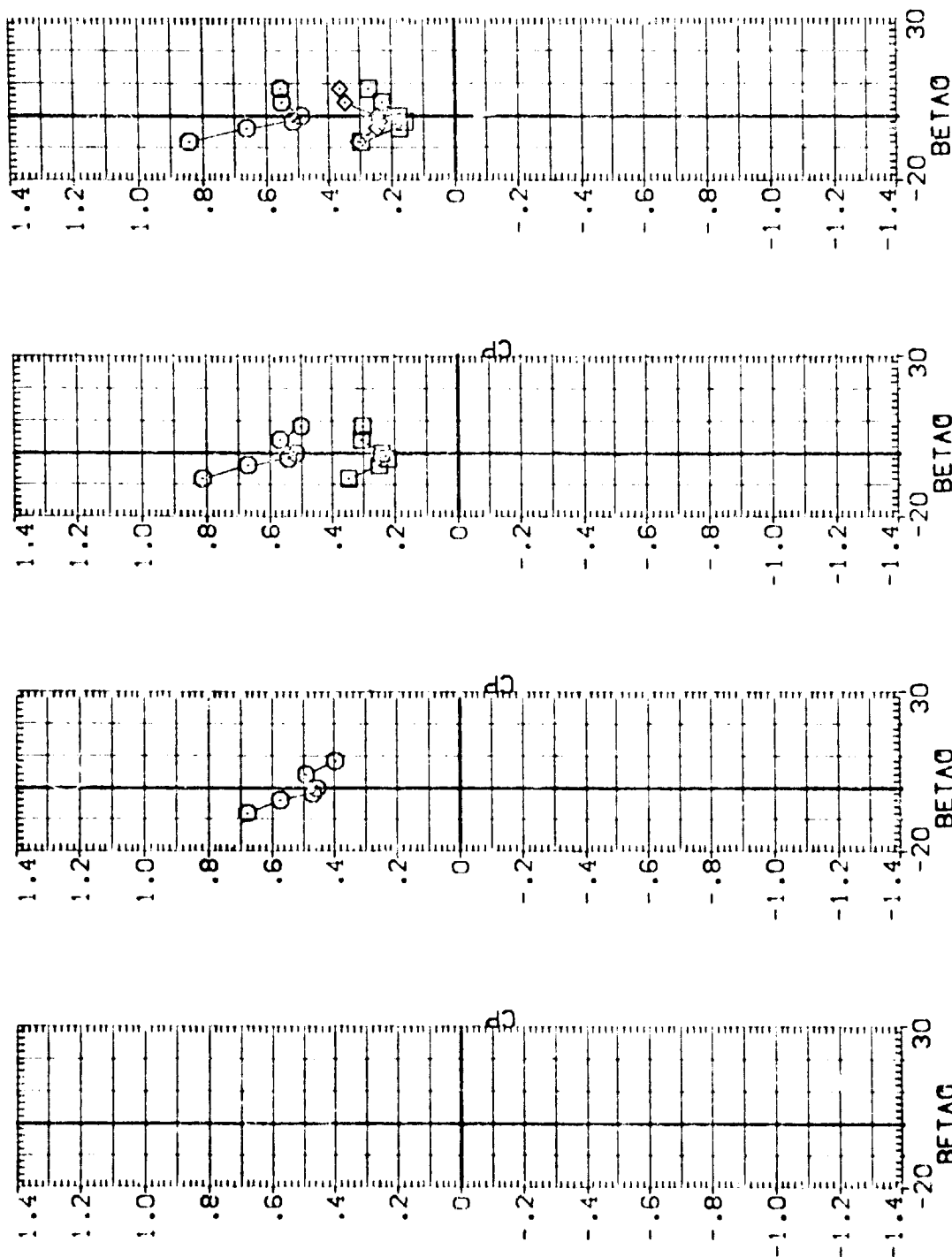
MACH  
RUDDER

ALPHA0  
-4.200

X/LT  
.391  
.397

PHI  
200.540  
204.080  
207.620  
222.840  
226.380

SYMBOL  
O I D A



EXTERNAL TANK ATTACH POINTS PRESSURES

PARAMETRIC VALUES	
1.250	ELEVON
.000	SPOBRK
	.000
	.000

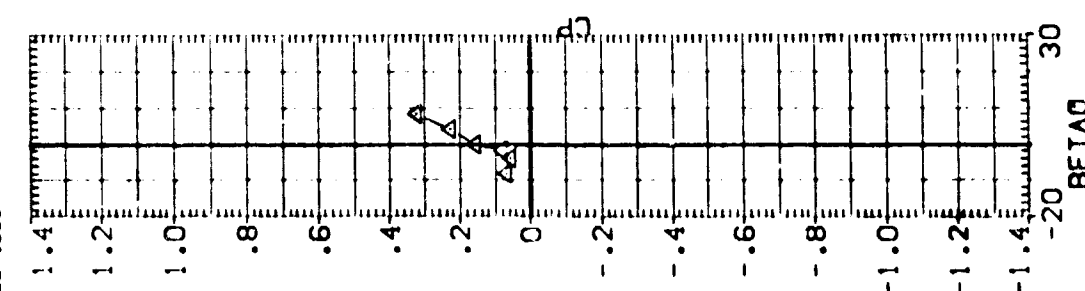
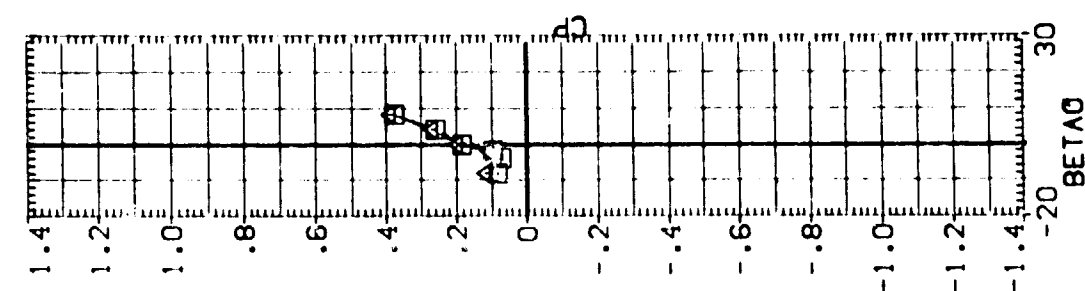
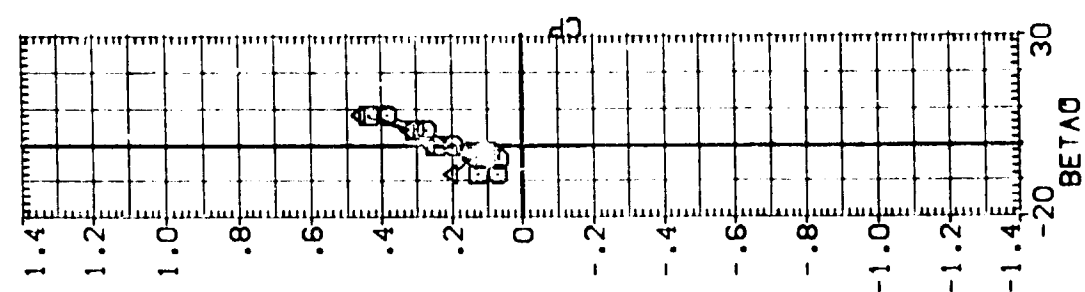
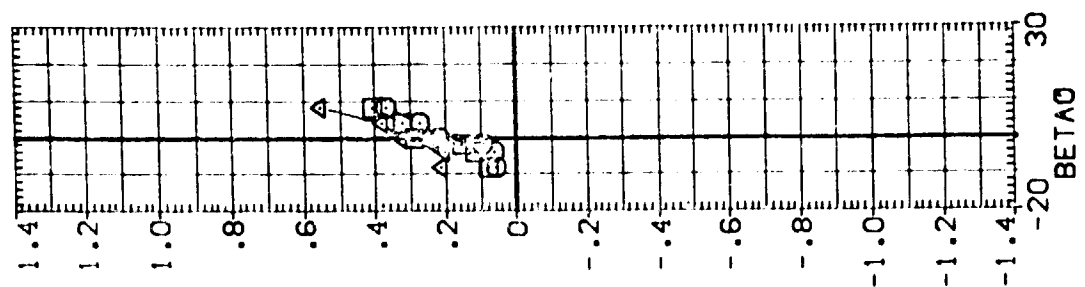
MACH  
RUDDER

ALPHA  
-4.200

XSLT  
.807  
.812  
.818  
.823

PHI  
229.920  
233.460  
234.040  
237.000  
237.580

000000



CP

## EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11-7:16 1A14 01+12+S12N25+AT10 ET ATTACH PTS. (RB1233)

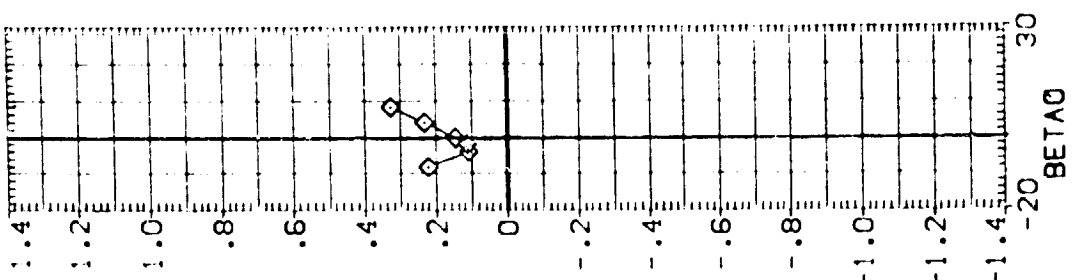
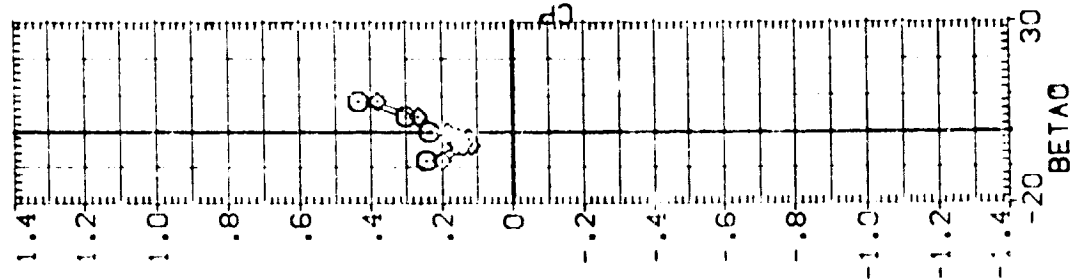
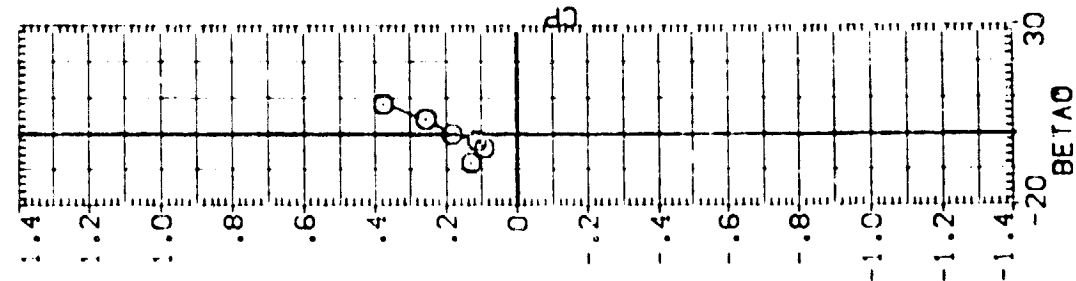
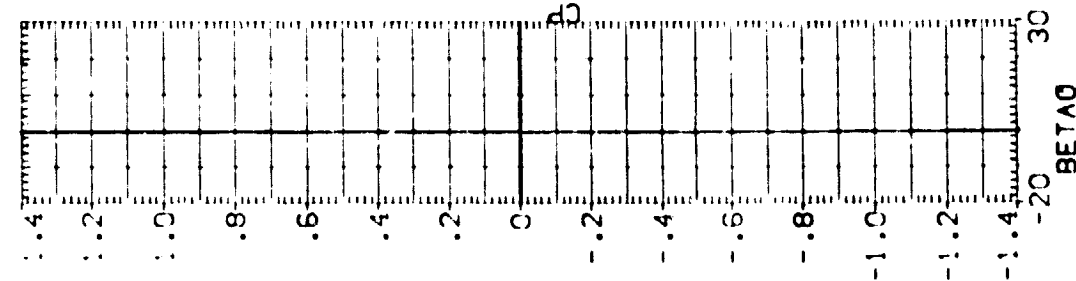
SYMBOL  
○ ○ ○ ○ ○

PHI  
240.540  
241.120  
244.080  
244.660  
248.200

X/LT  
.807  
.812  
.818  
.823

ALPHA  
-4.200

PARAMETRIC VALUES  
1.250 ELEVON  
.000 SPOBRK  
MACH  
RUDDER



EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 ET ATTACH PTS. (RB1233)

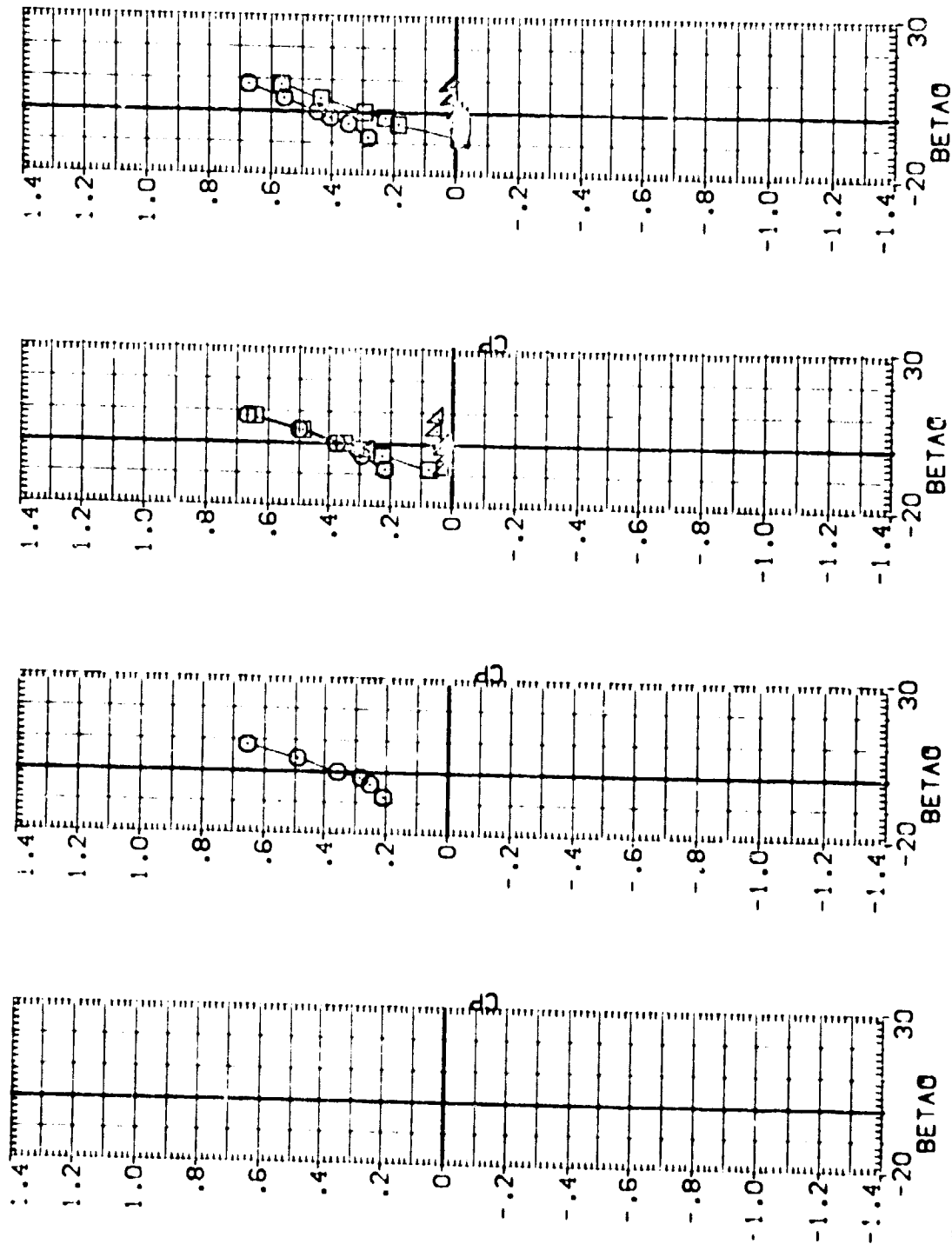
PARAMETRIC VALUES  
1.250 ELEVATION .000  
.000 SPOBRK .000

MACH  
RUDDER

ALPHA  
-4.200

PM1 X/LY  
251.740 .916  
255.280 .921  
323.510 .927  
327.050 .932  
330.590

SYMBOL  
O I D A 1



EXTERNAL TANK ATTACH POINTS PRESSURES

RC11-716 :A14 01+12+S12N25+AT10 ET ATTACH PTS. (RB1233)

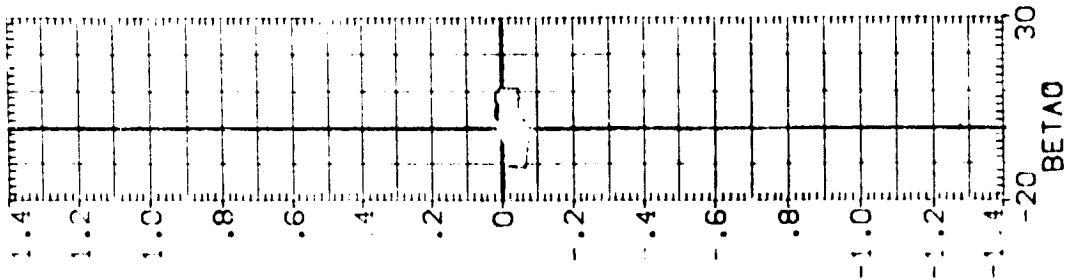
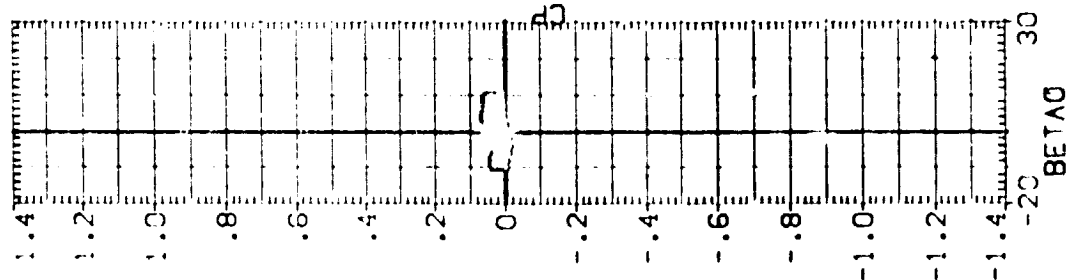
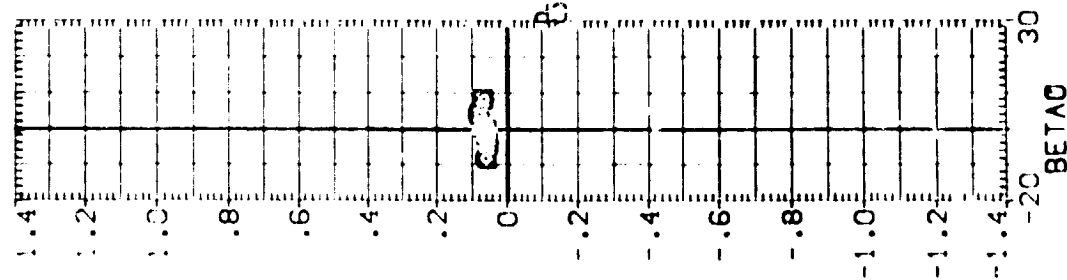
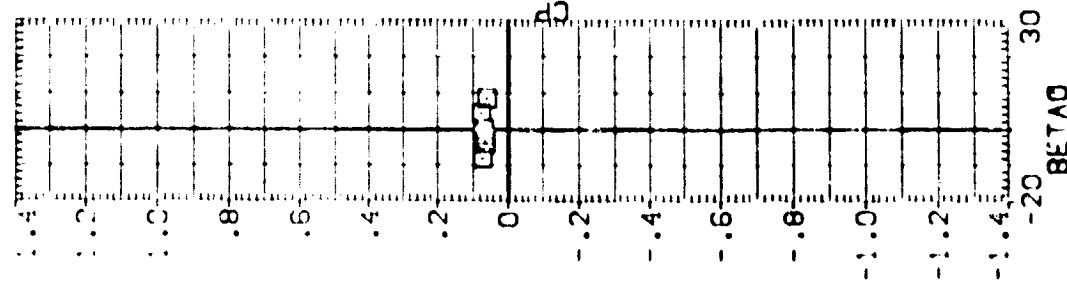
S 60  
 334.130  
 337.670  
 341.210  
 344.750

K/LT  
 .916  
 .921  
 .927  
 .932

ALPHA  
 -4.200

PARAMETRIC VALUES  
 1.250 ELEVON  
 .000 SPOBRK

MACH  
 RUDDER



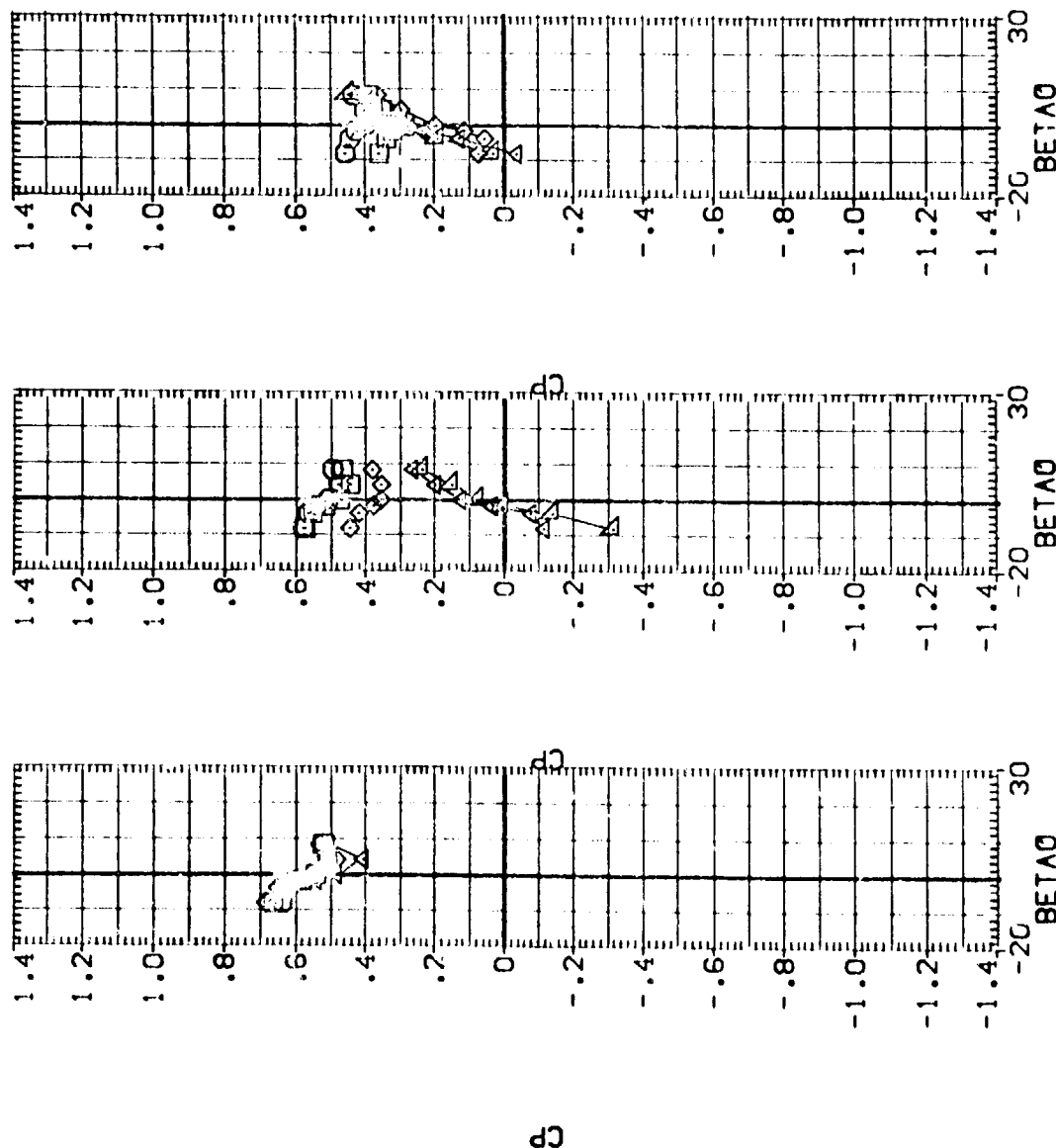
EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 ET ATTACH PTS.(RB1233)

PARAMETRIC VALUES  
MACH 1.250 ELEVON .000  
RUDDER .000

PHI 1/2 LT ALPHAO  
182.840 .413 -4.200  
186.380 .419  
189.920 .424  
193.460  
197.000

SYMBOL  
○ □ ◇ △ ▽



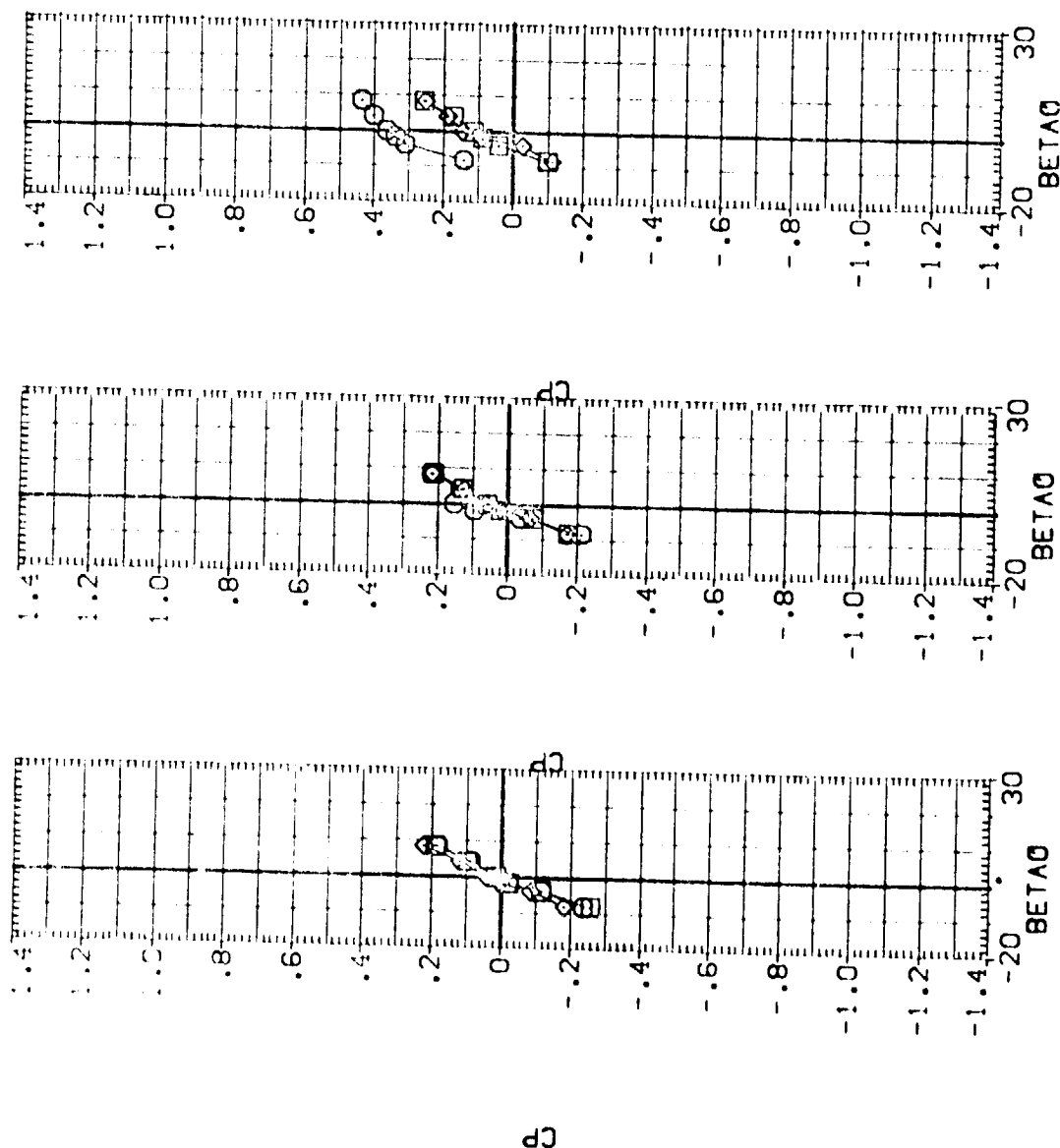
EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11-716 1A14 0.112+S12N25+AT10 ET ATTACH PFS.(RB.233)

SYMBOL  
0.001

PHI X/LT  
200.540 .413  
204.080 .415  
207.620 .424  
222.840  
225.300

PARAMETRIC VALUES  
1.250 ELEVON  
.000 SPOBRK  
MACH .000  
RUDDER



EXTERNAL TANK ATTACH POINTS PRESSURES

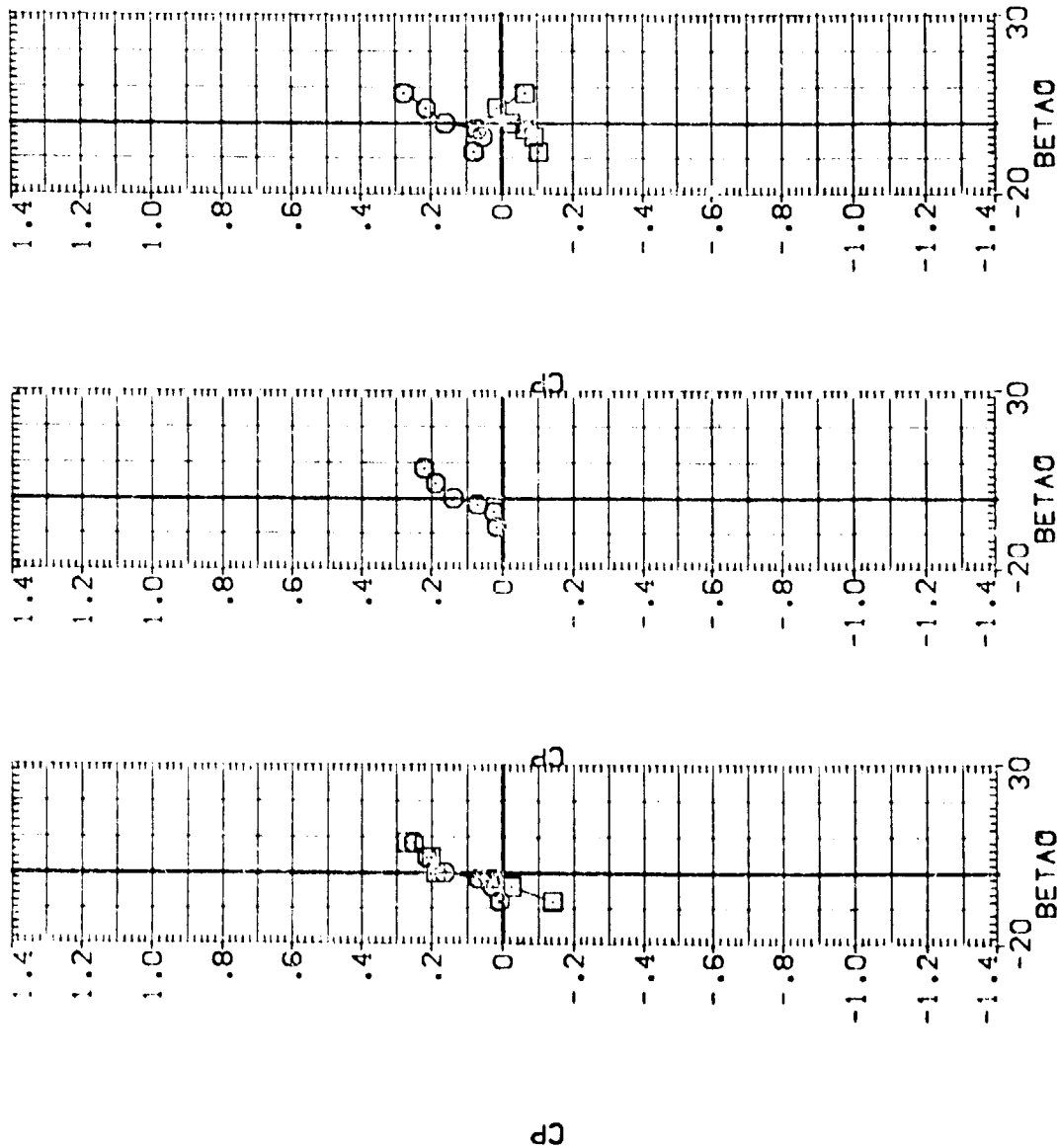
ARC11-716 1A14 01+T12+S12N25+AT10 ET ATTACH PTS.(R81233)

PARAMETRIC VALUES  
1.250 ELEVON  
.000 SPOON  
MACH  
RUDDER

PHI  
229.920  
233.460  
234.040  
237.000  
237.590

SYMBOL  
O 4.1

ALPHA  
-4.200  
.828  
.834  
.839



EXTERNAL TANK ATTACH POINTS PRESSURES

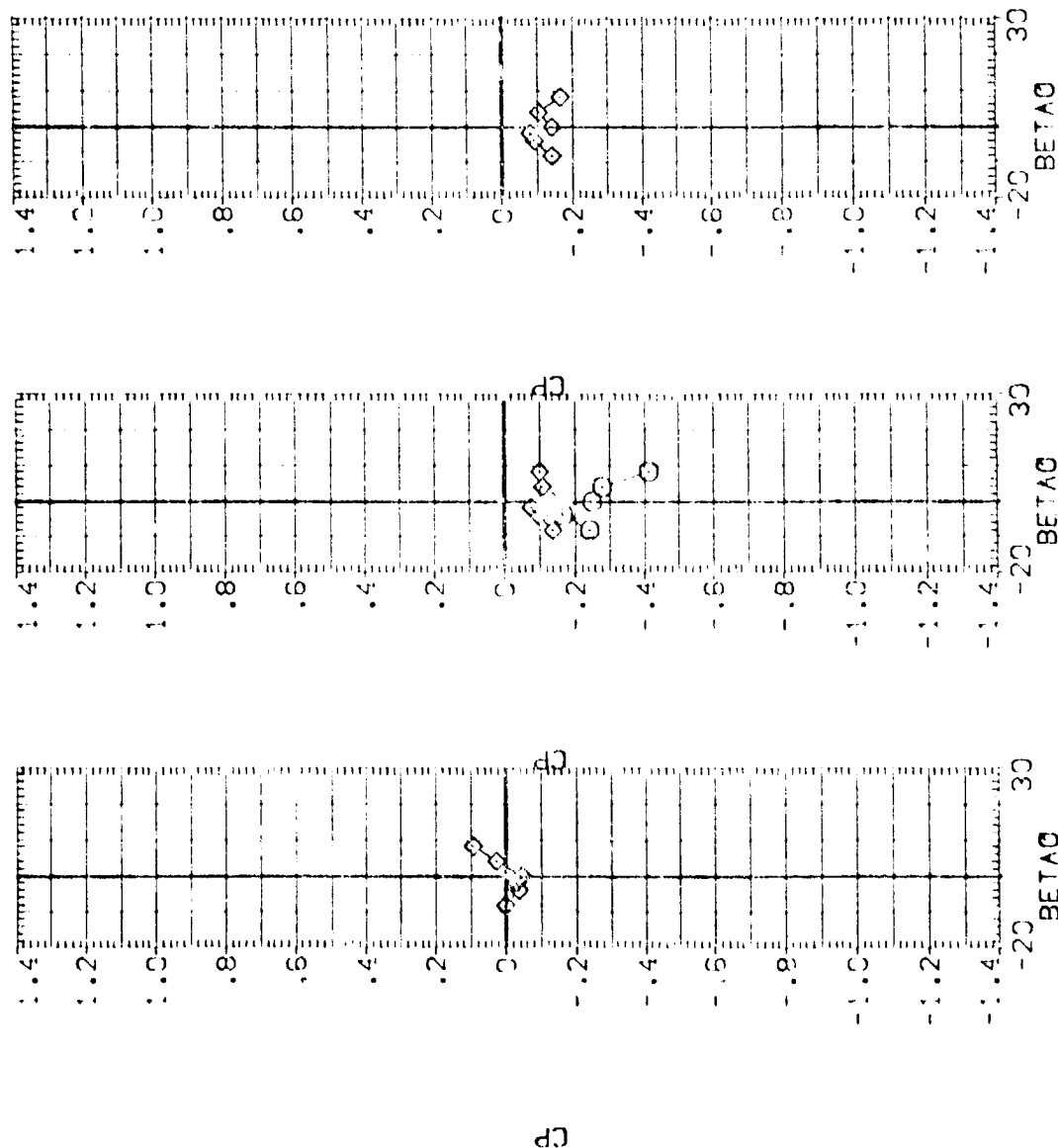


ARC11-716 1A14 01+1:2+S12N25+AL10 ET ATTACH PTS. (RB1233)

PARAMETRIC VALUES  
 1.250 ELEVON  
 .000 SPOILER  
 .000

MACH  
 RUDDER

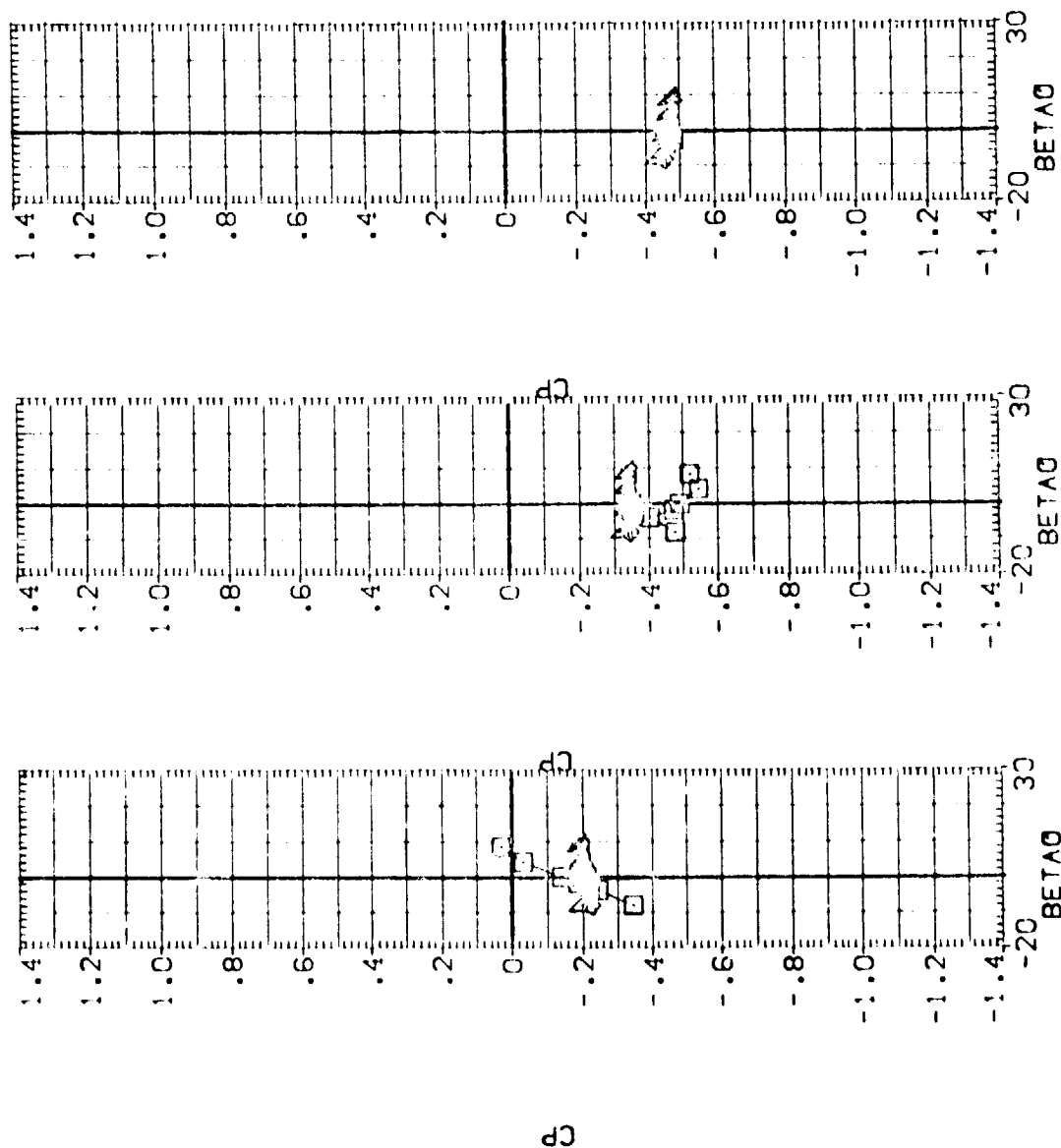
SYMBOL PHIL X/LT ALPHAO  
 240.540 .828 -4.200  
 241.120 .834  
 244.080 .839  
 244.650  
 248.200



EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11-716 1A14 01+112+S12N25+A110 ET ATTACH PTS. (RB1233)

SYMBOL	PHI	X/LT	ALPHA0	MACH	PARAMETRIC VALUES
0	251.740	.938	-4.200	RUDDER	1.250 ELEVON
1	255.280	.943			.000 SPOON
2	323.510	.948			
3	327.050				
4	330.590				



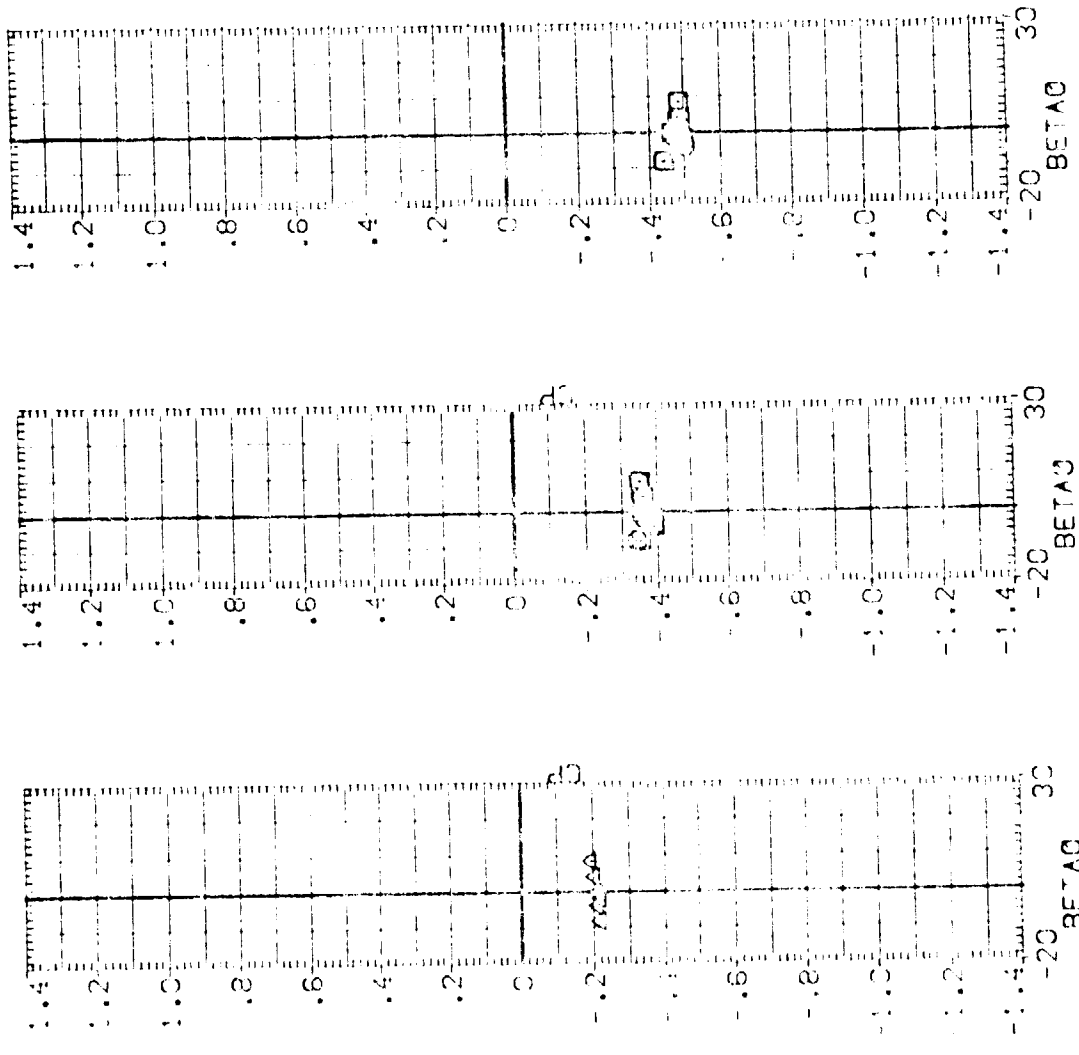
EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11-718 IA14 01+12+S12N25+AT10 ET ATTACH PTS.(RB1233)

SYMBOL  
□ □ □ △

P-1 334.130  
X/LT .938  
ALPHA0 -4.200  
337.670  
341.210  
344.750

PARAMETRIC VALUES  
1.250 ELEVON  
.000 SPOBRK  
MACH  
RUDDER



EXTERNAL TANK ATTACH POINTS PRESSURES

ARC:1-7:16 1A14 01+12+S:2.25+A:10 ET ATTACH PTS. (RB1233)

PARAMETRIC VALUES  
1.250 ELEVON .000  
.000 SPOON .000

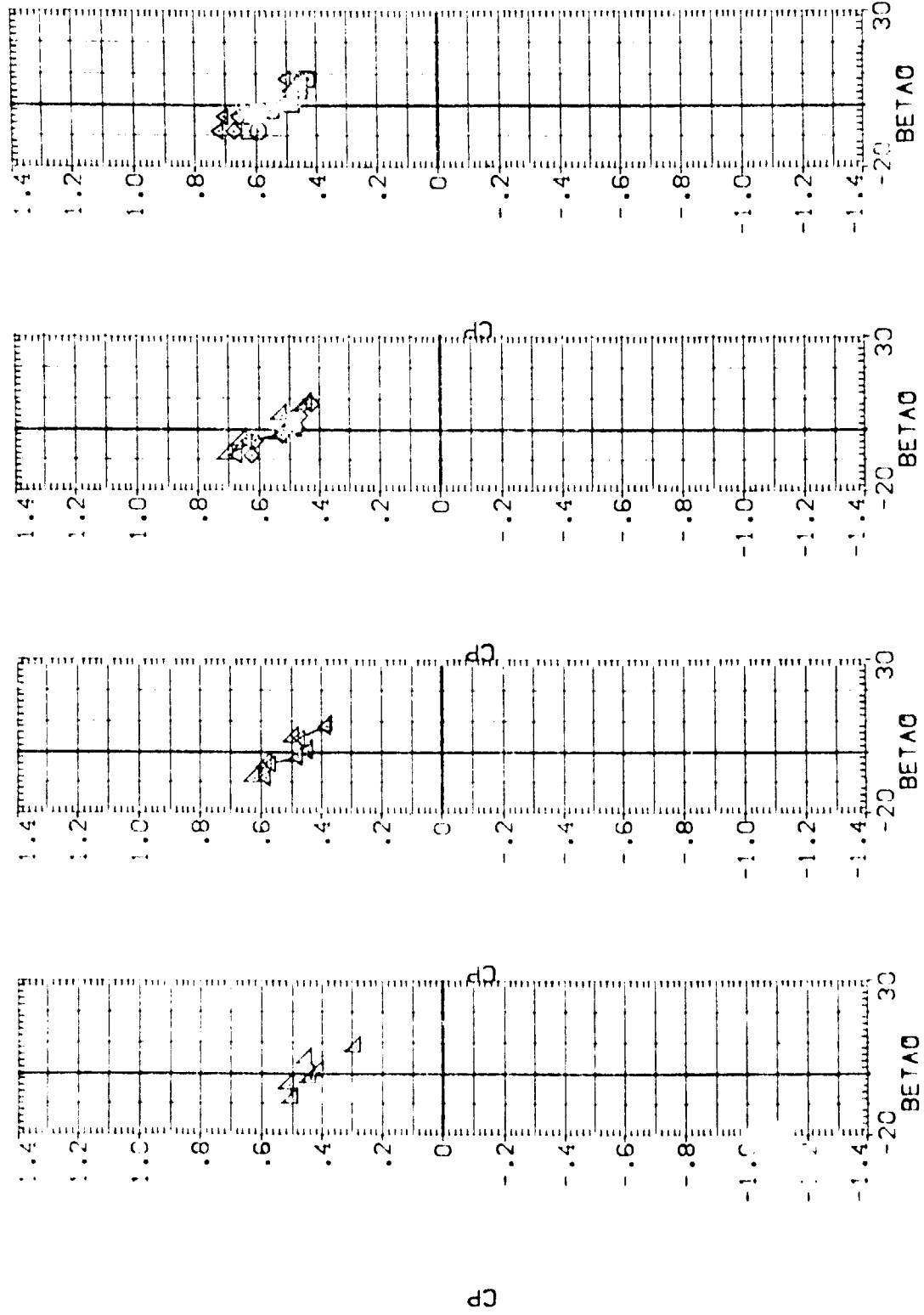
MACH  
RUDDER

ALPHA  
-1.760

A/LT

PHI  
182.840  
186.380  
189.920  
193.450  
197.000

SYMBOL  
010  
010  
010  
010  
010



EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 ET ATTACH PTS. (RB1233)

SYMBOL

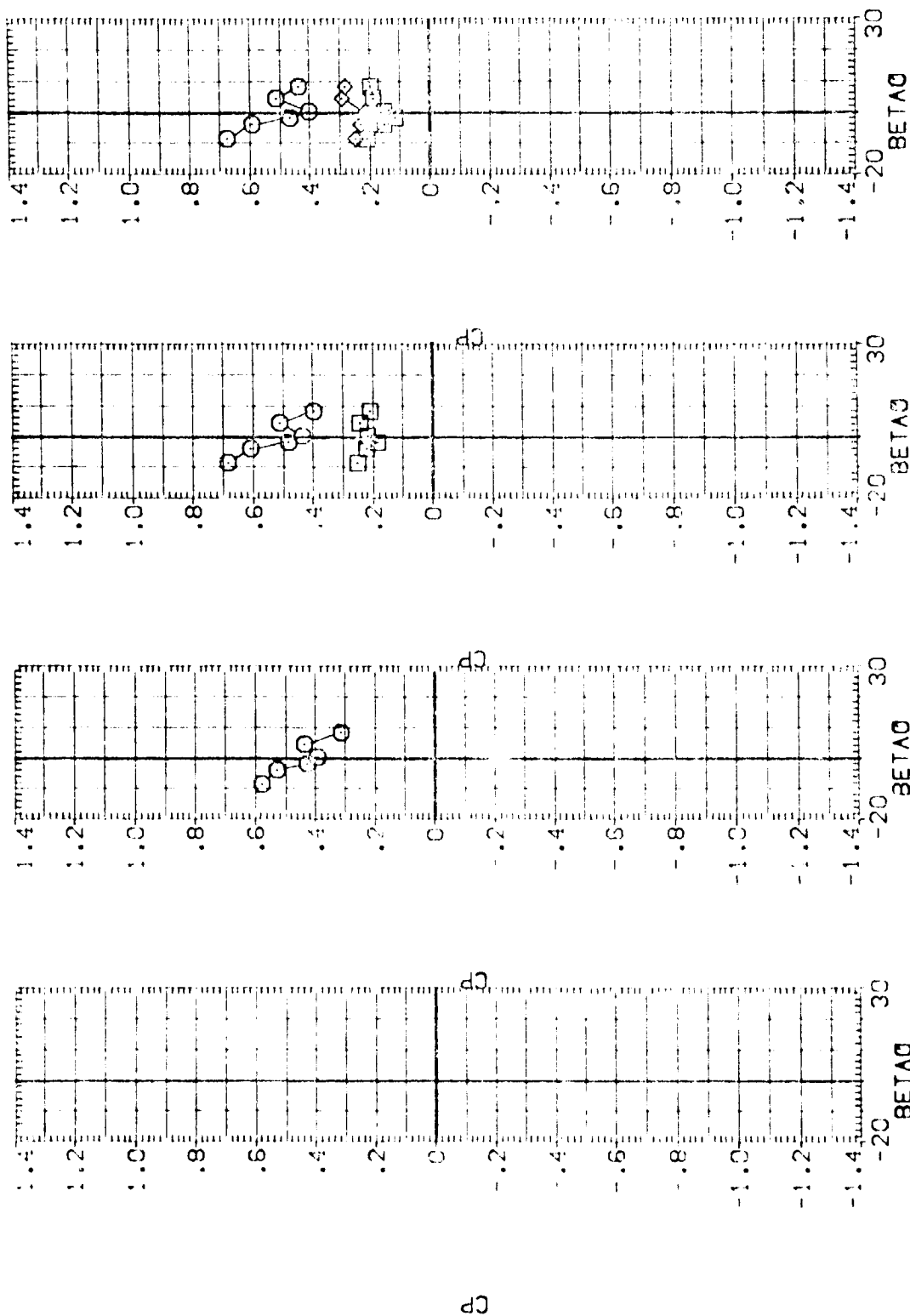
PHI  
200.540  
204.080  
207.620  
222.840  
226.380

K/LT  
.391  
.397  
.402  
.408

ALPHA0  
-.760

PARAMETRIC VALUES  
1.250 ELEVON  
.000 SPOILER  
.000

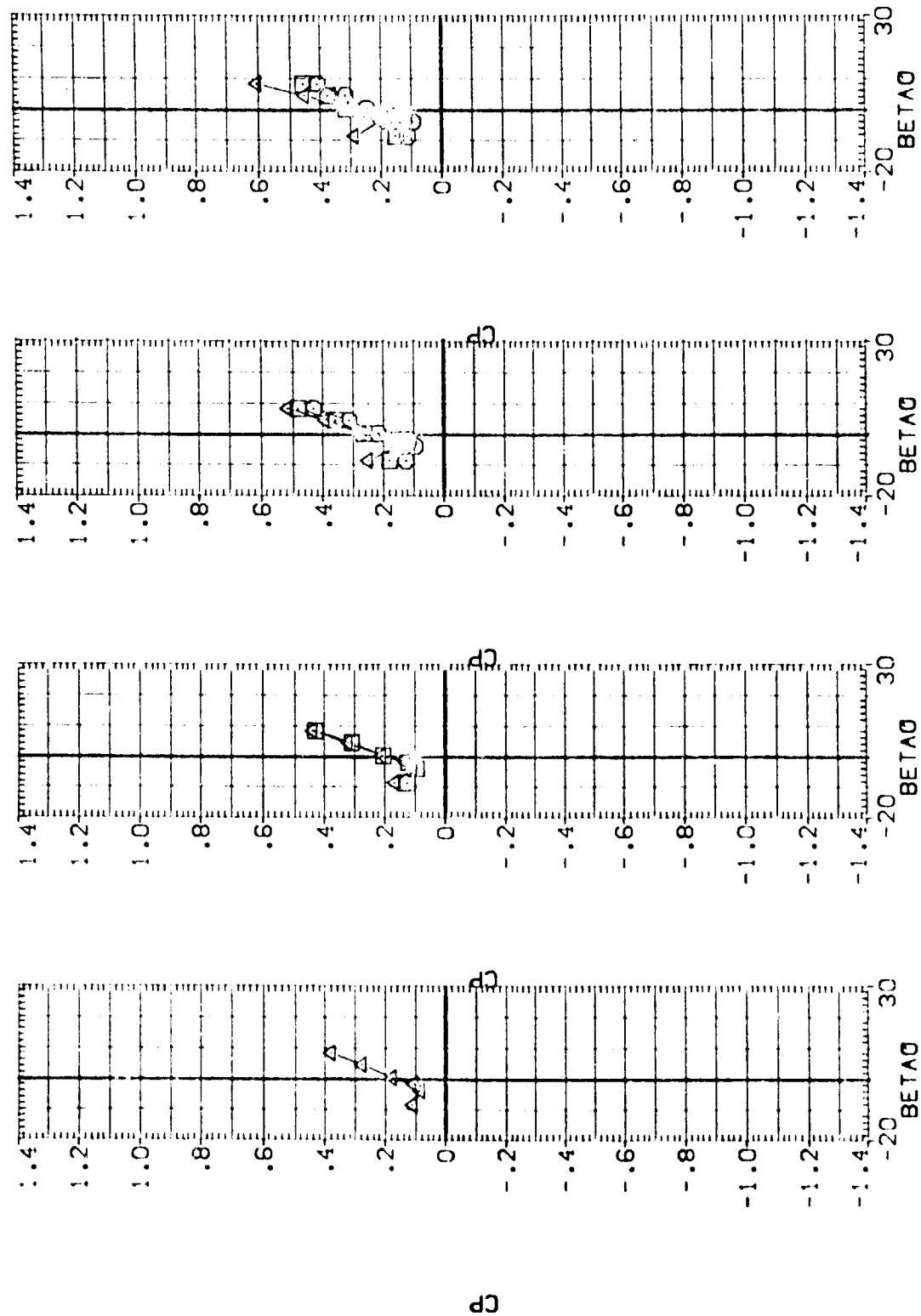
MACH  
RUDDER



EXTERNAL TANK ATTACH POINTS PRESSURES

ARC:1-7:16 1A14 01+12+S:2N25+AT10 ET ATTACH PTS.(RB1233)

SYMBOL	RAI	X/Y	ALPHA	PARAMETRIC VALUES		
				MACH	ELEVON	SPDRK
	229.920	.807	-.760		1.250	.000
	233.460	.812		RUDDER	.000	.000
	234.040	.818				
	237.000	.823				
	237.580					



EXTERNAL TANK ATTACH POINTS PRESSURES

ARC1:-716 1A14 01+T12+S12N25+AT10 ET ATTACH PTS.(RB1233)

SY-BOL

PHI

X/LT

ALPHA0

240.540  
241.120  
244.080  
244.660  
248.200

.807  
.812  
.818  
.823

-.760

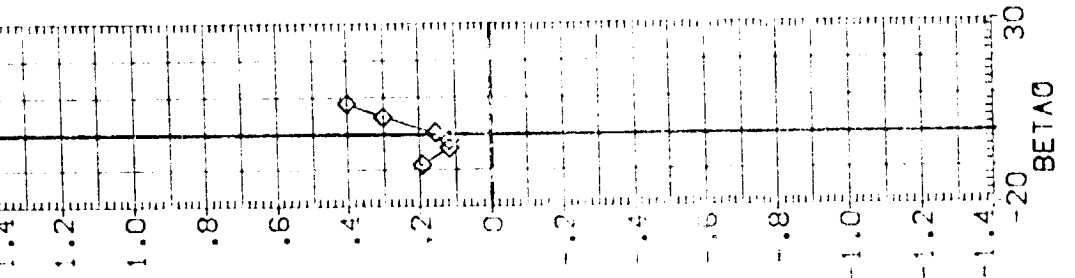
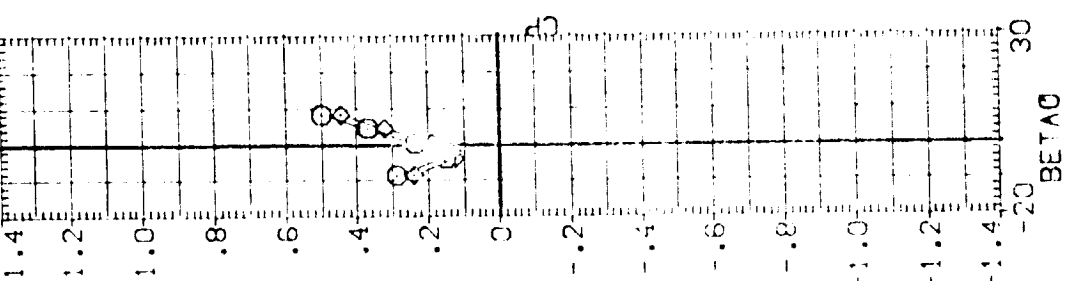
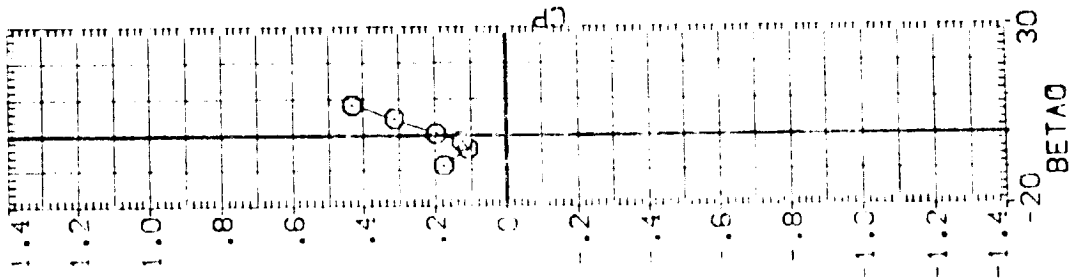
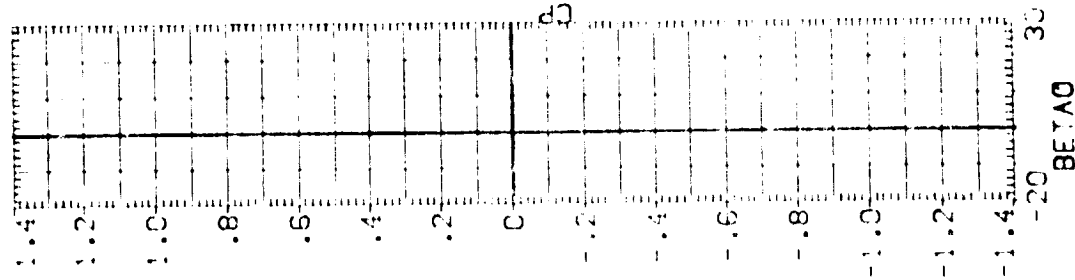
PARAMETRIC VALUES

1.250  
.000

ELEVON  
SPDRK

.000  
.000

MACH  
RUDDER



EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11-716 1A14 01-112+S12N25+A110 ET ATTACH PTS.(RB1233)

SYMBOL  
O  
□  
△

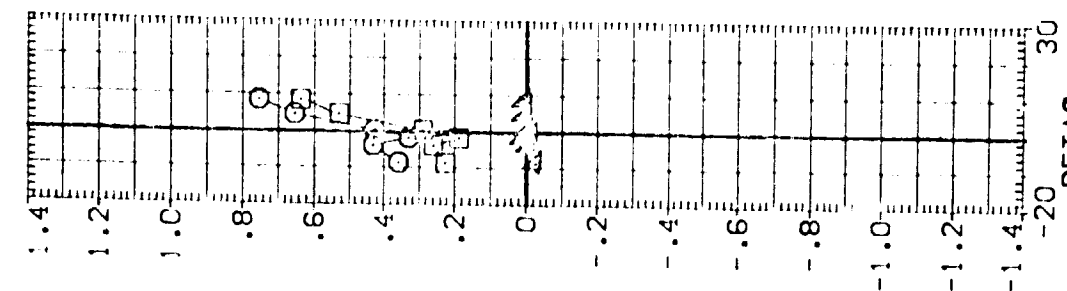
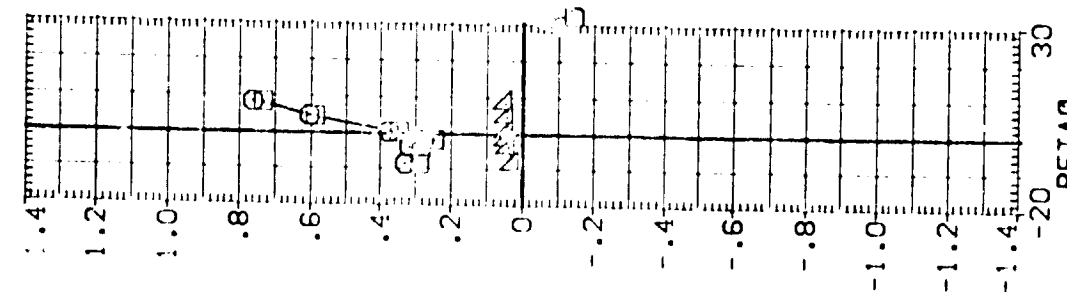
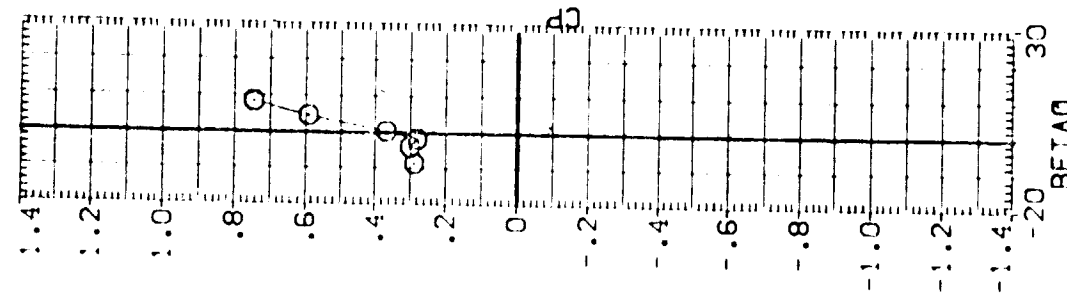
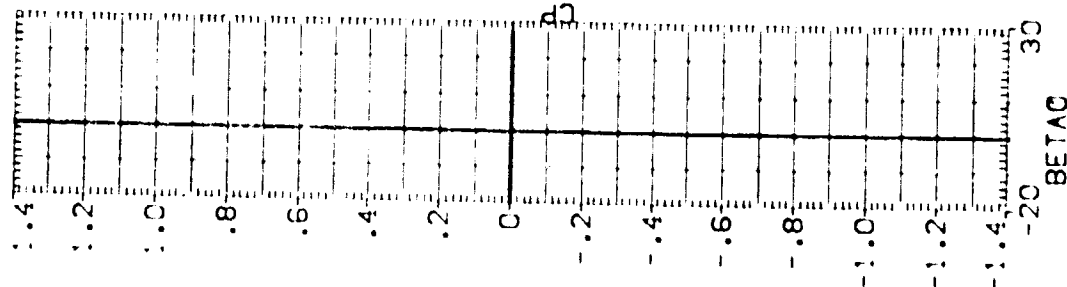
PHI  
251.740  
255.260  
323.510  
327.050  
330.500

K/L  
.916  
.921  
.927  
.932

ALPHA  
-1.780

PARAMETRIC VALUES  
1.250 ELEVON  
.000 SPOON  
.000

MACH  
RUDER



EXTERNAL TANK ATTACH POINTS PRESSURES



ARC:-716 1A14 01+T:2+S:2N25+AT10 ET ATTACH PTS.(RB1233)

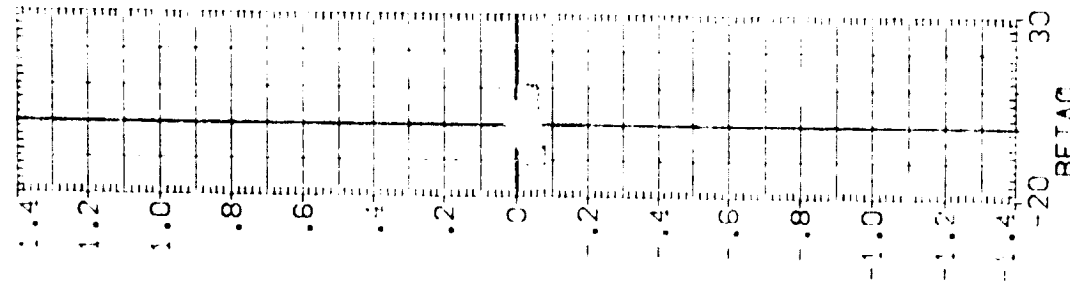
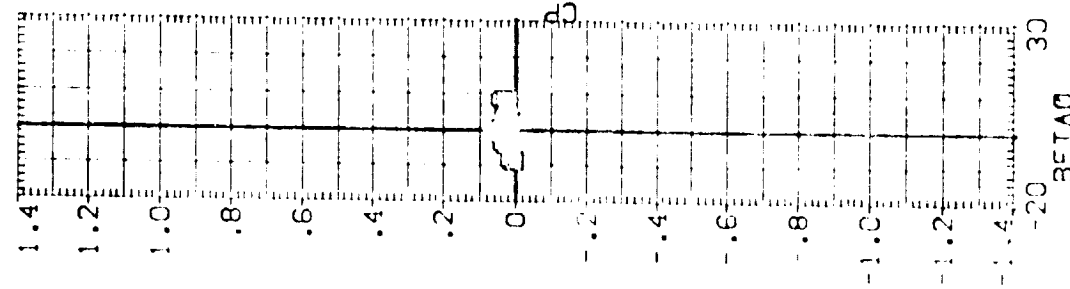
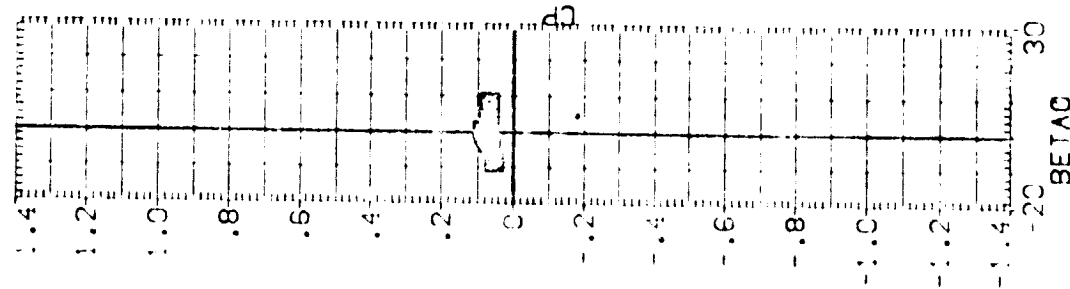
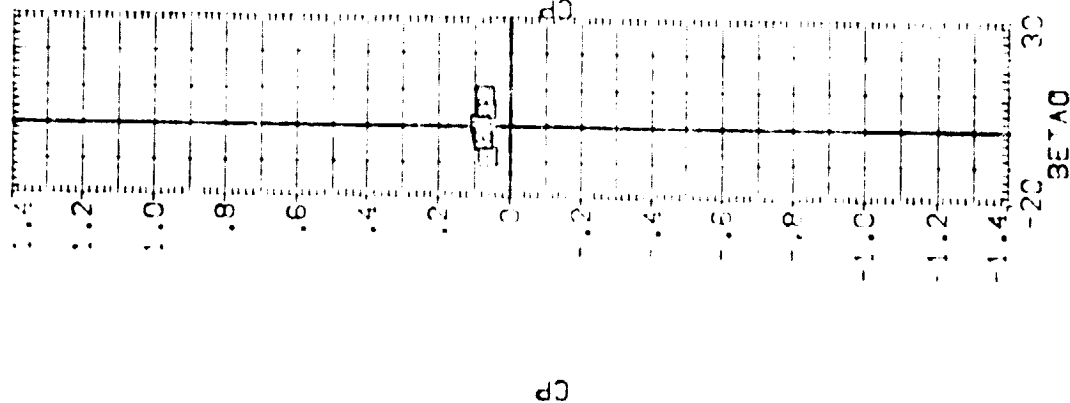
SYMBOL

PHI V/LT ALPHAB

PARAMETRIC VALUES

1.250 ELEVEN .000  
1.000 SPOSIN .000

MACH  
RUDDER

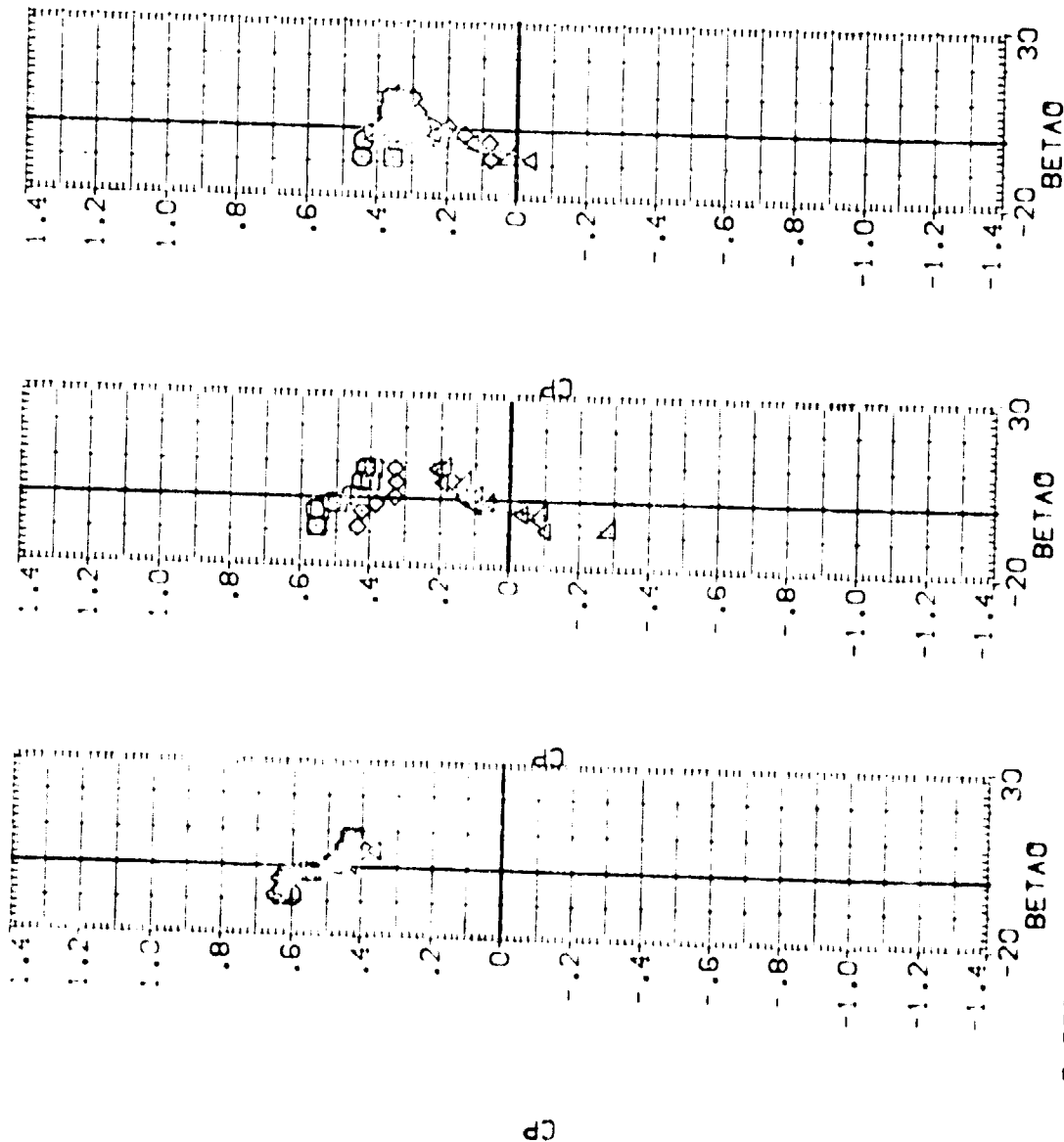


EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11-116 1A14 01+12+S12+25+AT10 ET ATTACH PTS. (R31233)

SYMBOL PHJ X/Y Z ALPHABETIC VALUES  
 0 182.840 .413 .750  
 1 86.380 .419  
 2 89.920 .424  
 3 93.460  
 4 97.000

PARAMETRIC VALUES  
 MACH 1.250  
 RUDDER .000  
 ELEVON .000  
 SPOILER .000



EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11-716 1A:4 01:12+S12N25+AT10 ET ATTACH PTS. (RB1233)

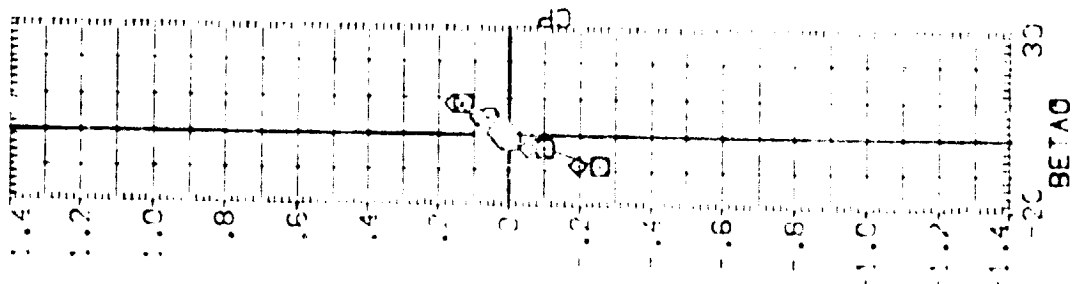
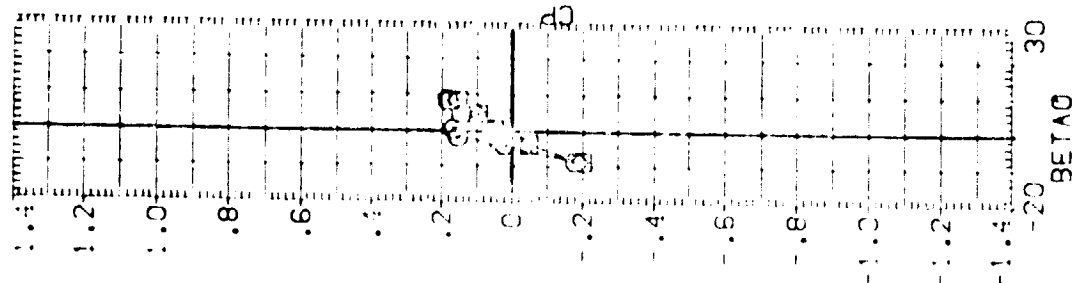
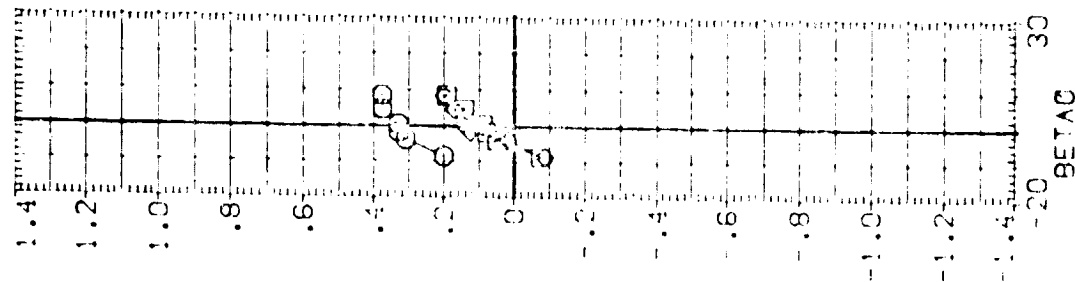
PARAMETRIC VALUES  
 1.250 ELEVON  
 .000 SPDRK  
 .000

MACH  
 RUDER

PHI  
 X/LT  
 ALPHA0

200.540  
 204.080  
 207.620  
 212.840  
 226.380

SYMBOL  
 0 1 2 3 4 5

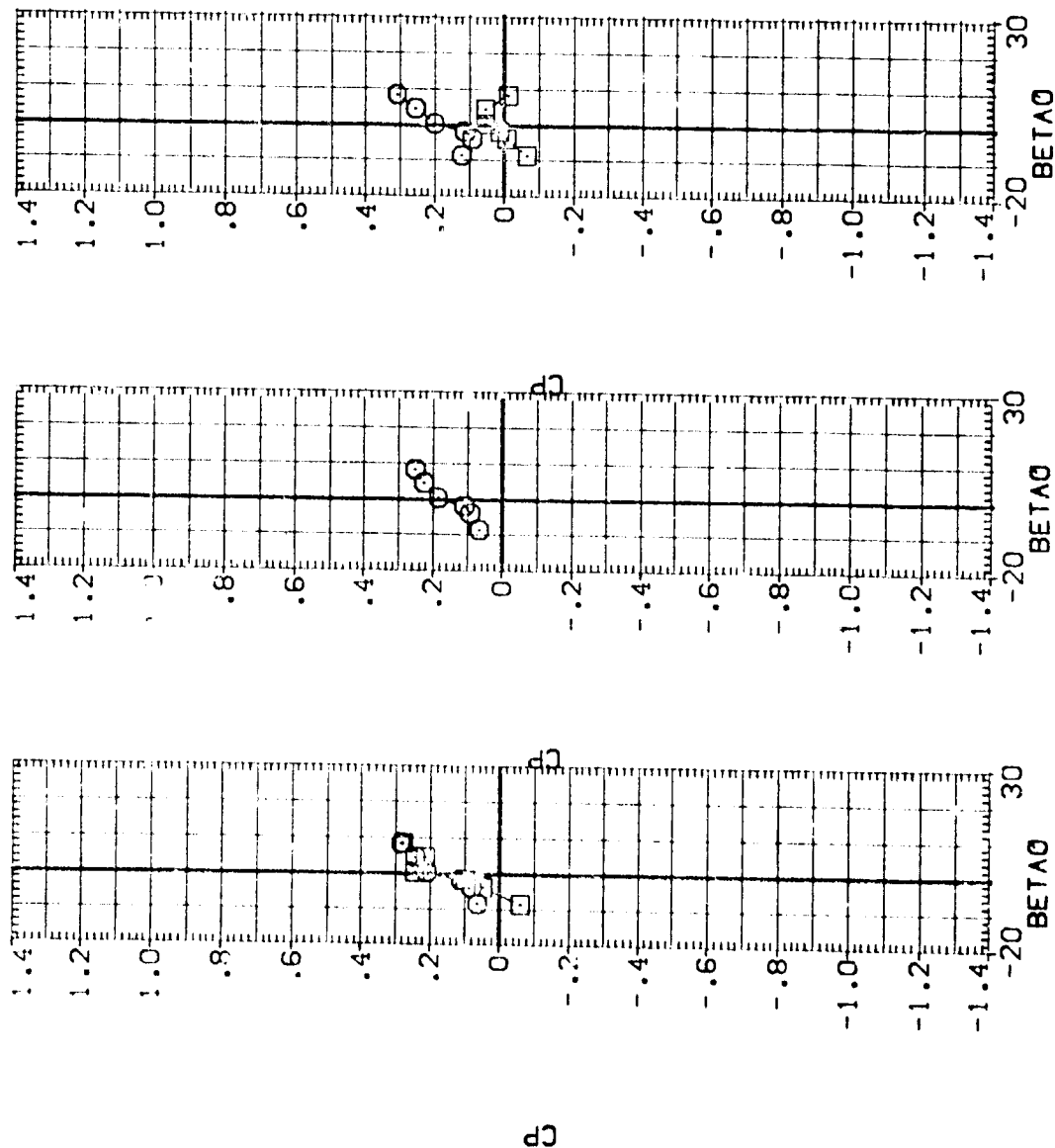


EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 ET ATTACH PTS. (RB1233)

PARAMETRIC VALUES  
1.250 ELEVON  
.000 SPOBR  
MACH  
RUDDER

SYMBOL PHI X/LI ALPHAB  
229.920 .828  
233.460 .834  
234.040 .839  
237.000  
237.560

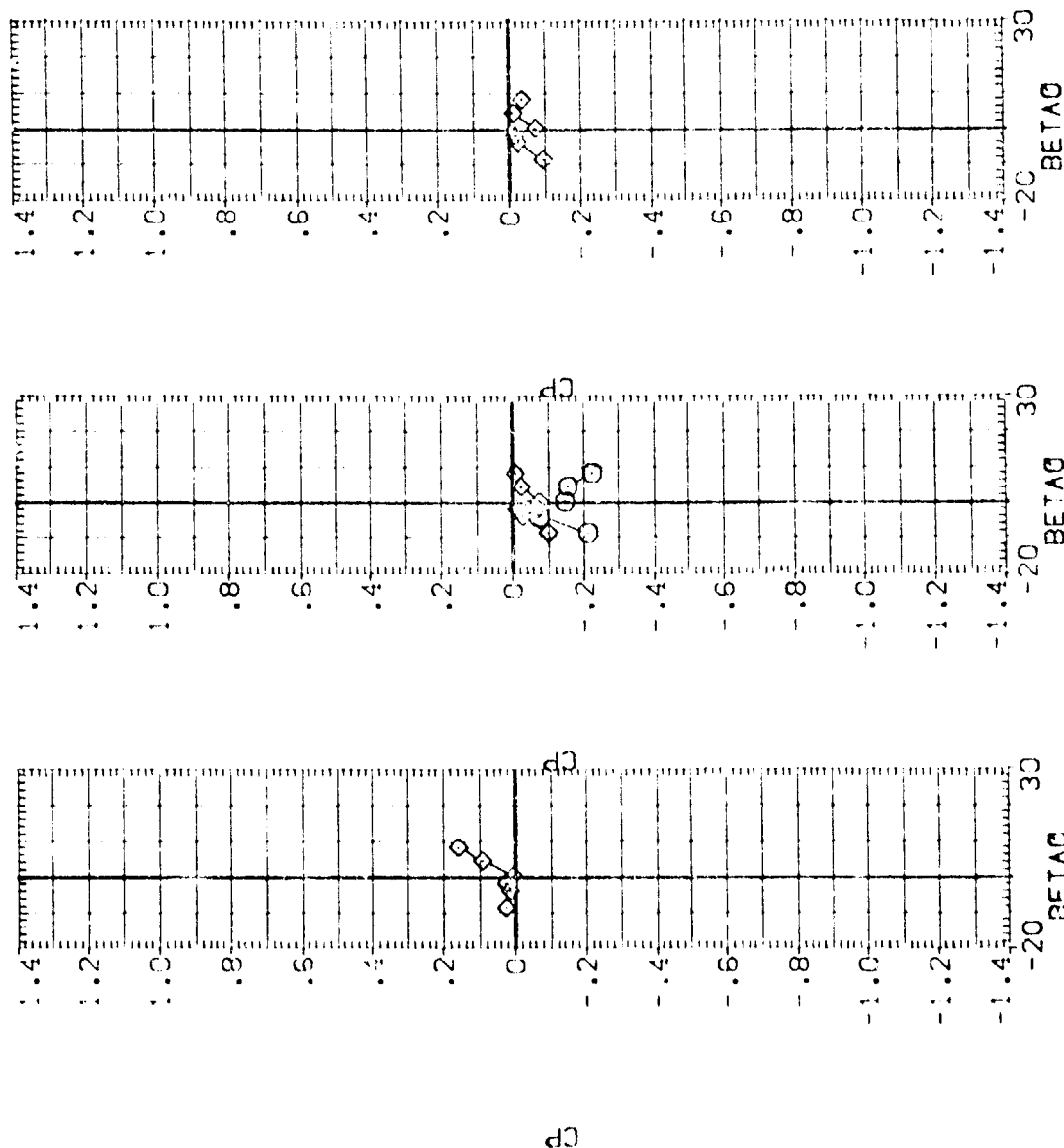


EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 ET ATTACH PTS. (RB1233)

PARAMETRIC VALUES  
MACH 1.250  
ELEVON .000  
RUDDER .000  
SPOILER .000

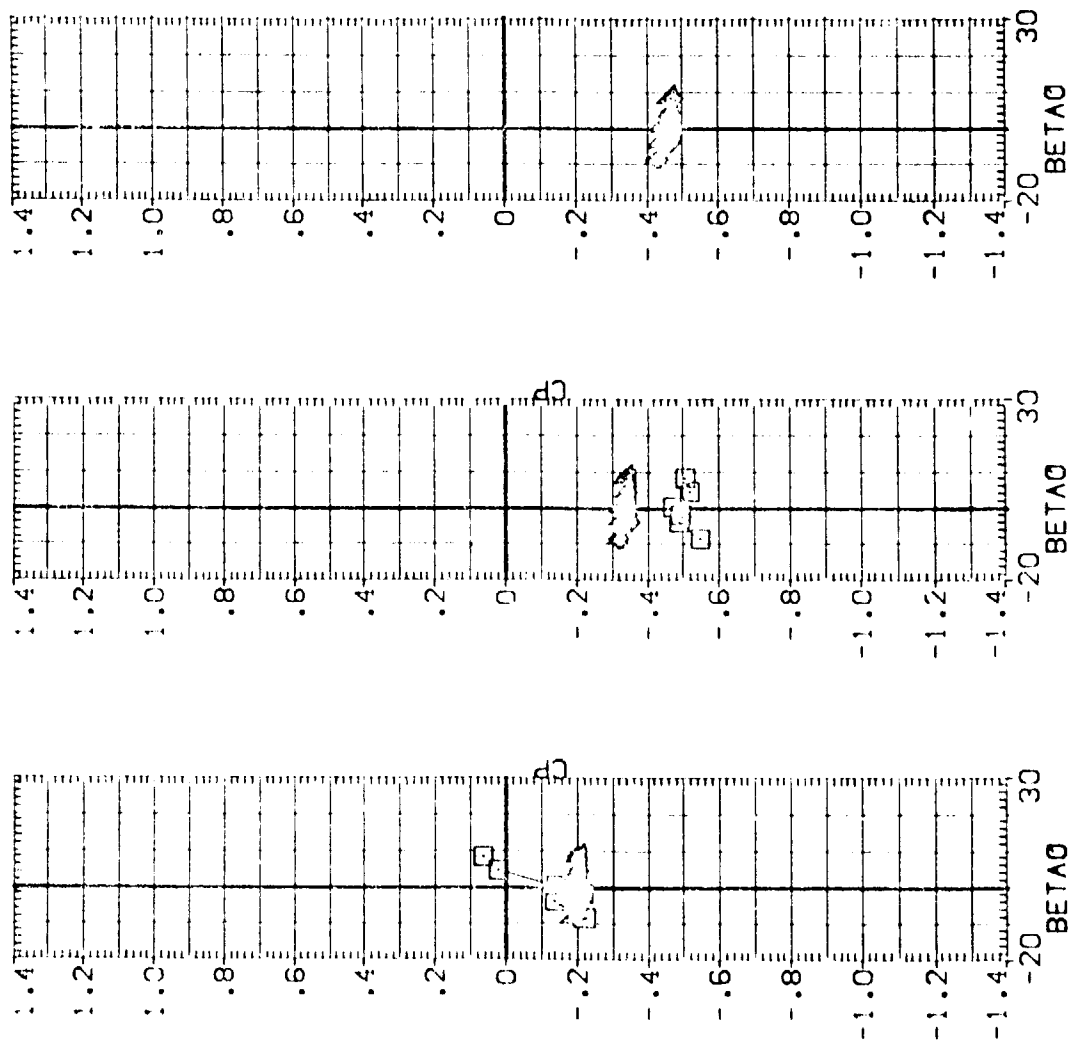
SYMBOL PHI X/LT ALPHA0  
240.540 .828 -.750  
241.120 .834  
244.080 .839  
244.660  
246.200



EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 ET ATTACH PTS. (RB1233)

SYMBOL	PHI	X/LT	ALPHA0	PARAMETRIC VALUES
	251.740	.938	-1.750	
	255.280	.943		MACH
	323.510	.948		RUDDER
	327.050			
	330.550			



EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 ET ATTACH PTS.(RB1233)

SYMBOL  
 ○  
 ◇  
 △

PHI  
 334.130  
 337.570  
 341.210  
 344.750

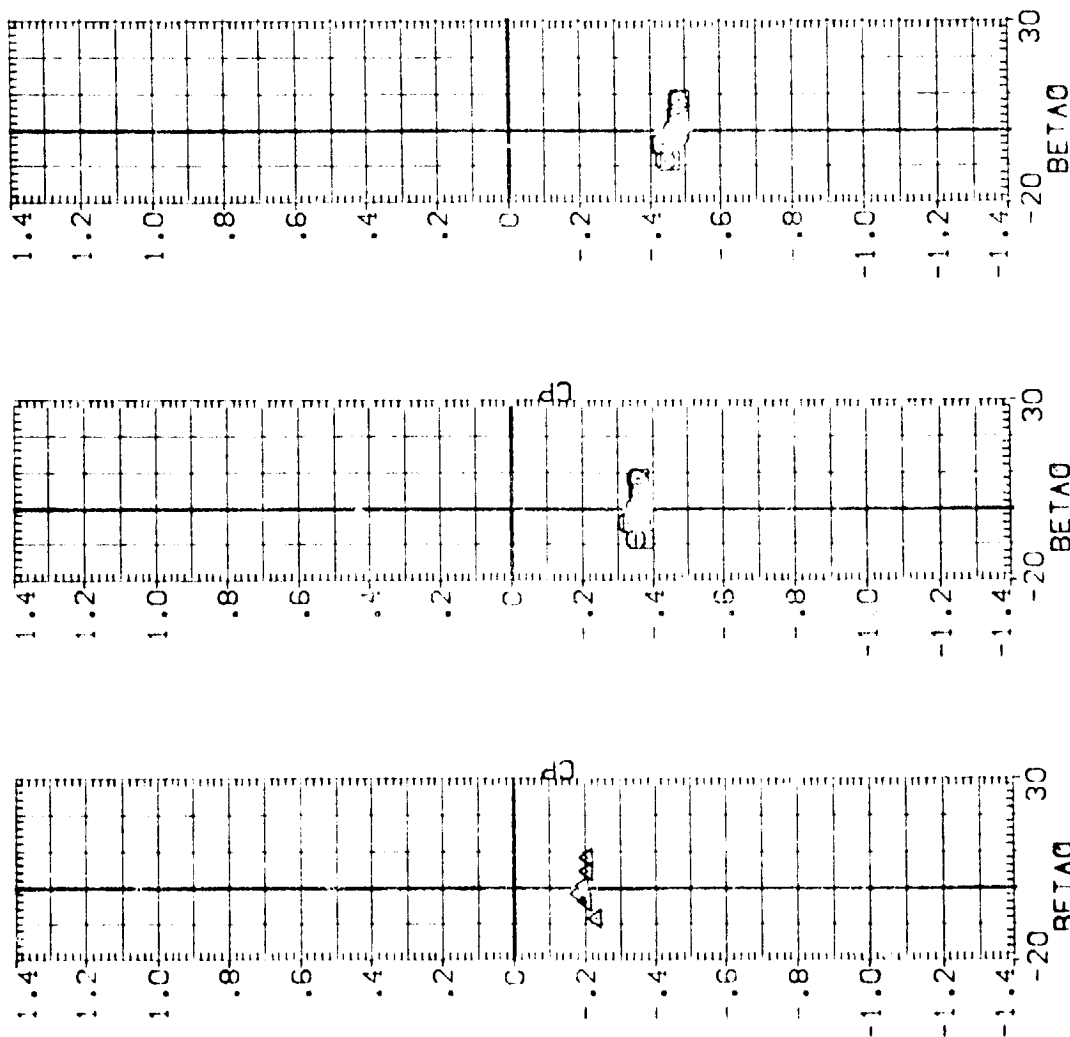
X/LT  
 .938  
 .943  
 .948

ALPHA  
 -.760

PARAMETRIC VALUES  
 1.250  
 .000  
 .000

MACH  
 RUDDER

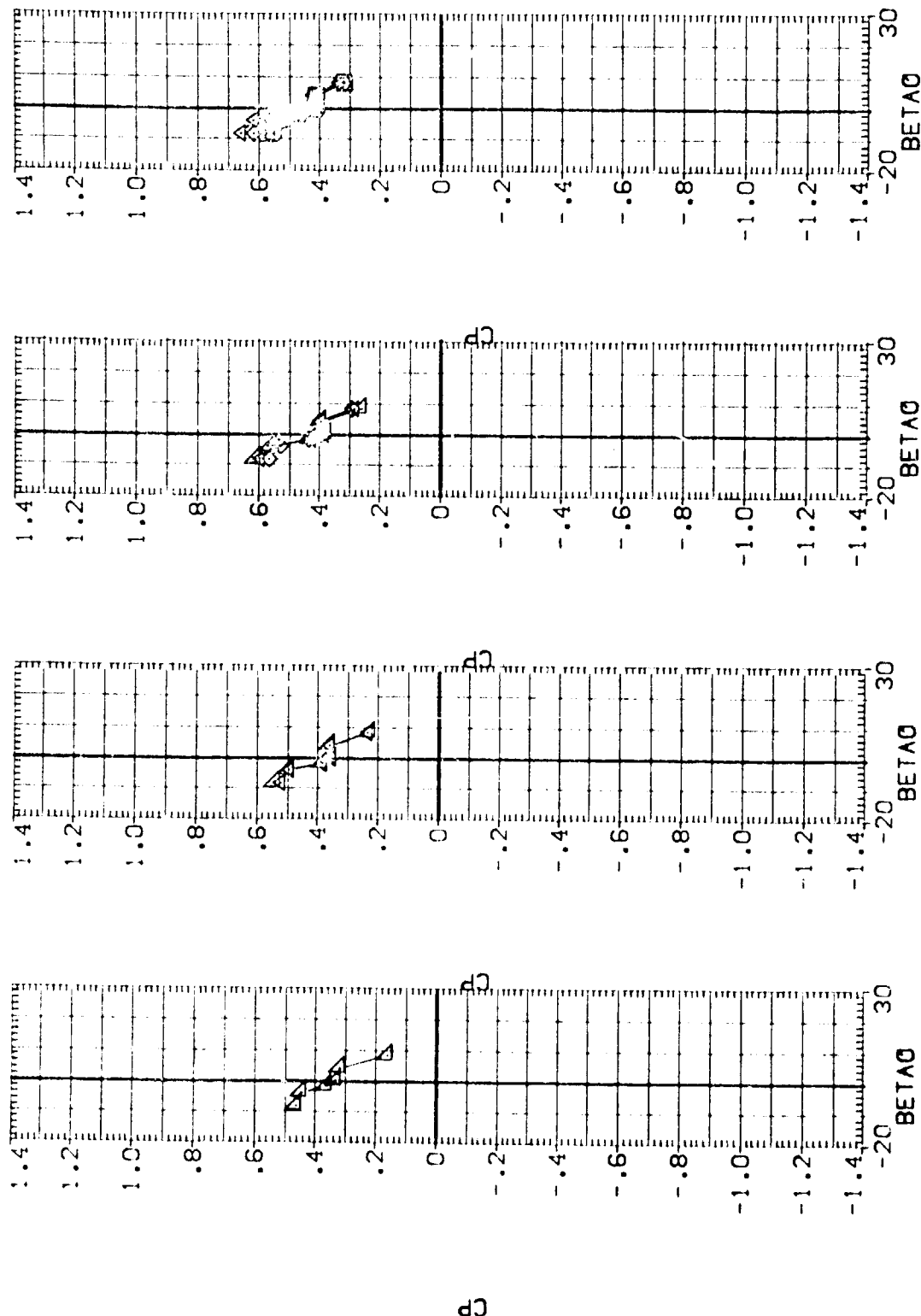
.000  
 .000



EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11-716 1A14 01+112+S12N25+AT10 ET ATTACH PTS.(R31233)

SYMBOL	PHI	X/LT	ALPHA	PARAMETRIC VALUES		
				MACH	ELEVON	SPOBRK
○	182.840	.391	4.300		.000	.000
◇	186.380	.397		RUDDER		
△	189.920	.402				
▽	193.460	.408				
□	197.000					



EXTERNAL TANK ATTACH POINTS PRESSURES



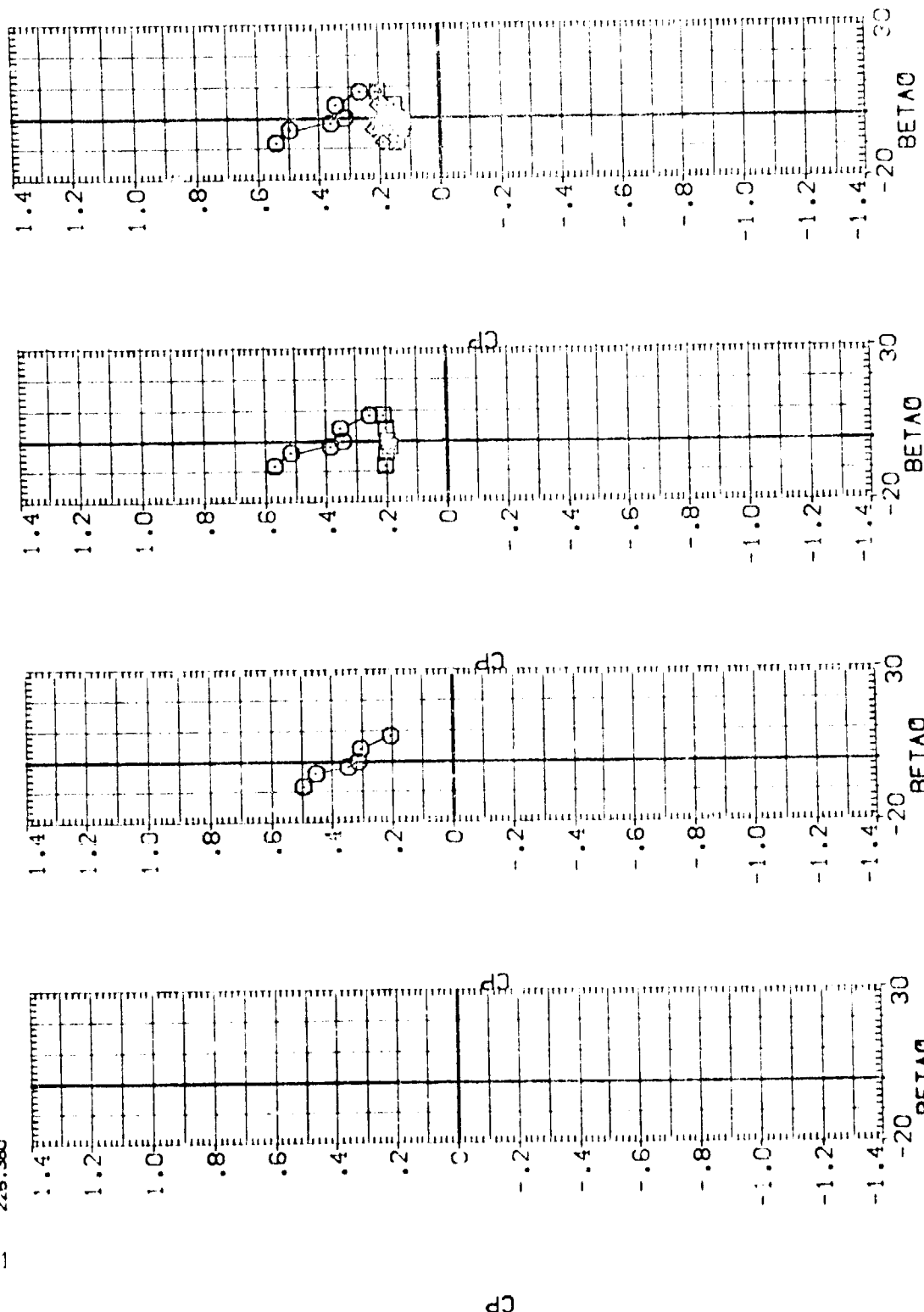
ARC11-716 IA14 01+T12+S12N25+AT10 ET ATTACH PTS.(RB1233)

SYMBOL  
 O □ ◇ △

PHI X/LT ALPHA  
 200.540 .391 4.300  
 204.080 .397  
 207.620 .402  
 222.840 .408  
 226.380

PARAMETRIC VALUES  
 1.250 ELEVON .000  
 .000 SPOILER .000

MACH  
 RUDDER

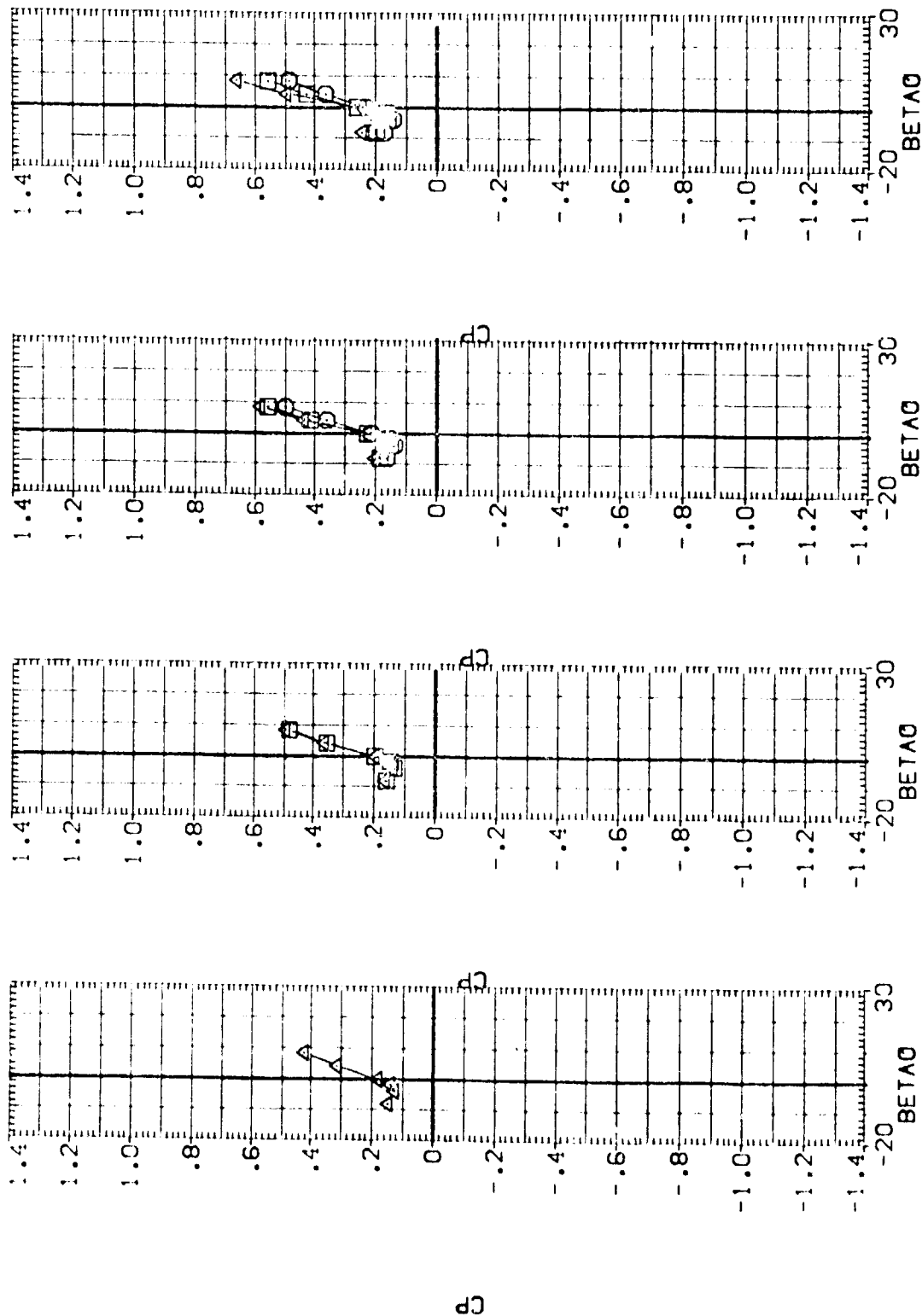


EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11-7:6 1A14 01+112+S12N25+AT10 ET ATTACH PTS.(R81233)

SYMBOL	PHI	X/LT	ALPHA	PARAMETRIC VALUES		
				1.250	ELEVON	.000
0	229.920	.807	4.300	.000	SPDRX	.000
1	233.460	.812				
2	234.040	.818				
3	237.000	.823				
4	237.500					

MACH  
RUDDER



EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 ET ATTACH PTS. (RB1233)

SYMBOL

PH1

X/LT

ALPHA0

240.540

.807

4.300

○

241.120

.812

◇

244.080

.818

△

244.660

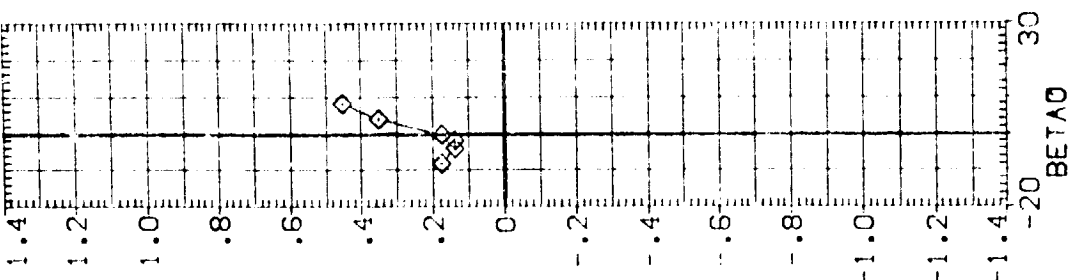
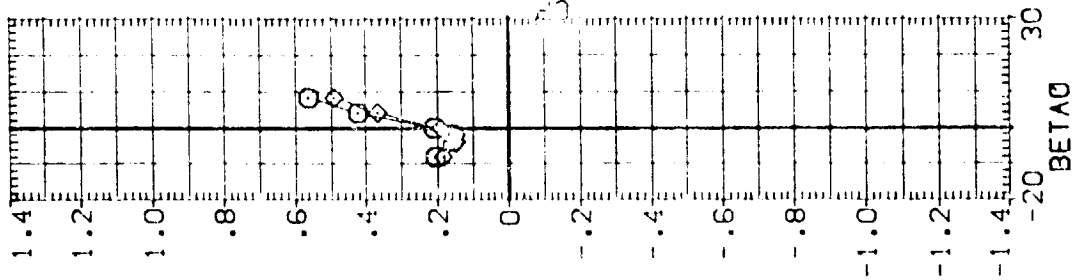
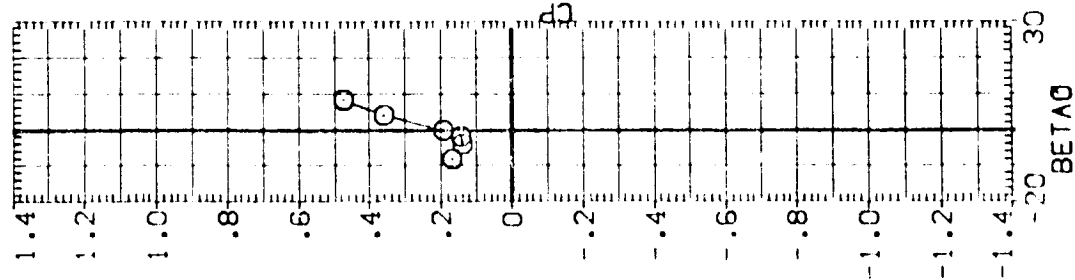
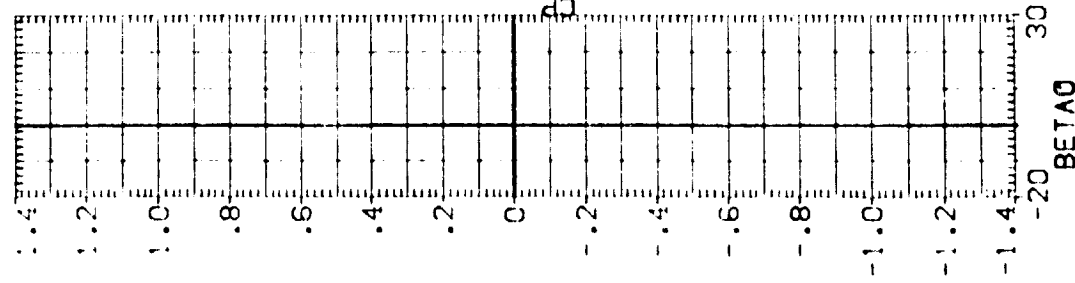
.823

▽

248.200

PARAMETRIC VALUES  
1.250 ELEVON .000  
.000 SPOBRK .000

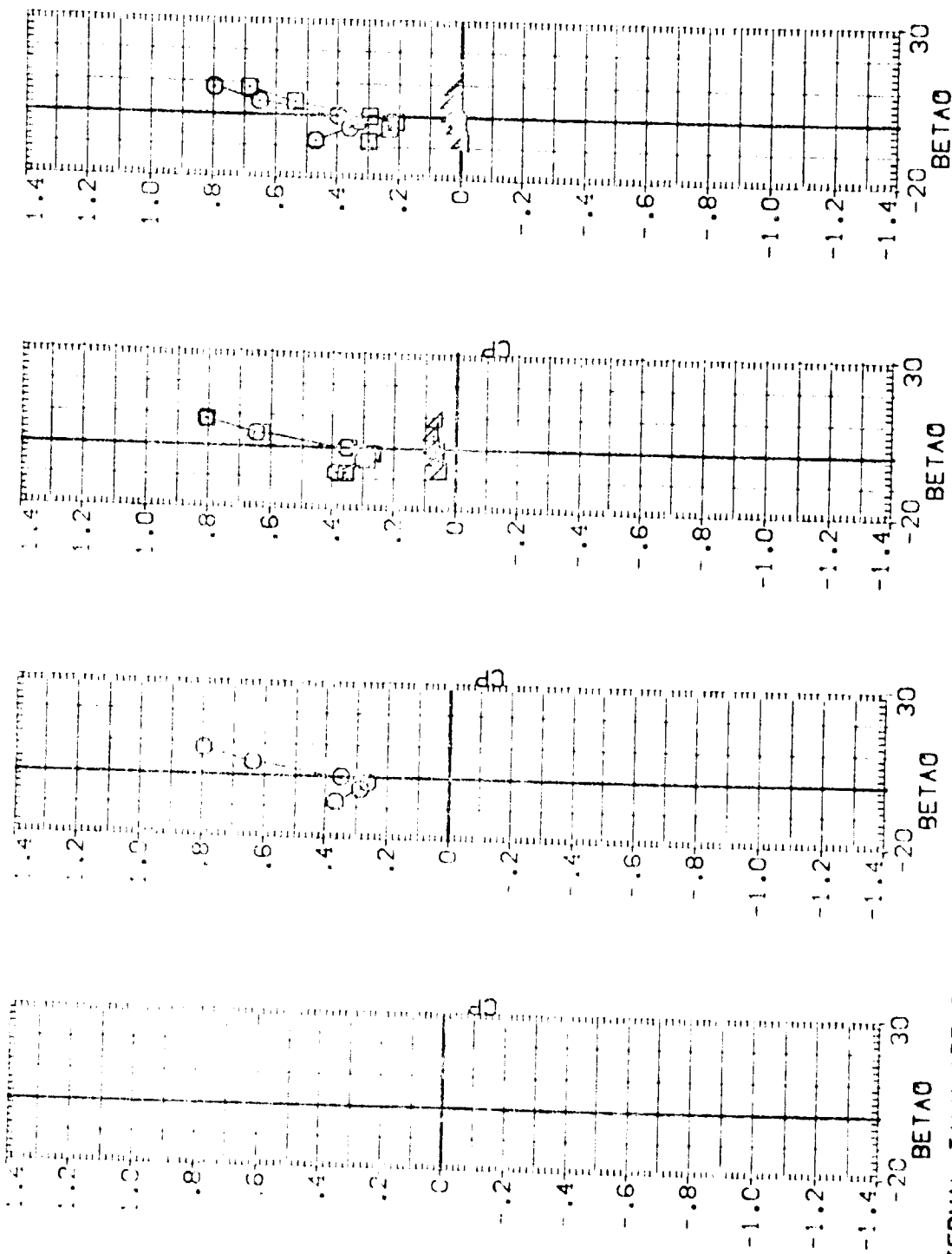
MACH  
RUDDER



EXTERNAL TANK ATTACH POINTS PRESSURES

ARC:1-7:6 1A:4 C1+12+S:2+25+AT10 ET ATTACH PTS. (RB1233)

SYMBOL	PAI	K/LT	ALPHA	PARAMETRIC VALUES		
				MACH	ELEVON	SPDBAK
○	25.1740	.915	4.300	1.250	.000	.000
□	255.280	.921		.000	.000	
◇	323.510	.927				
△	327.050	.931				
▽	330.590					

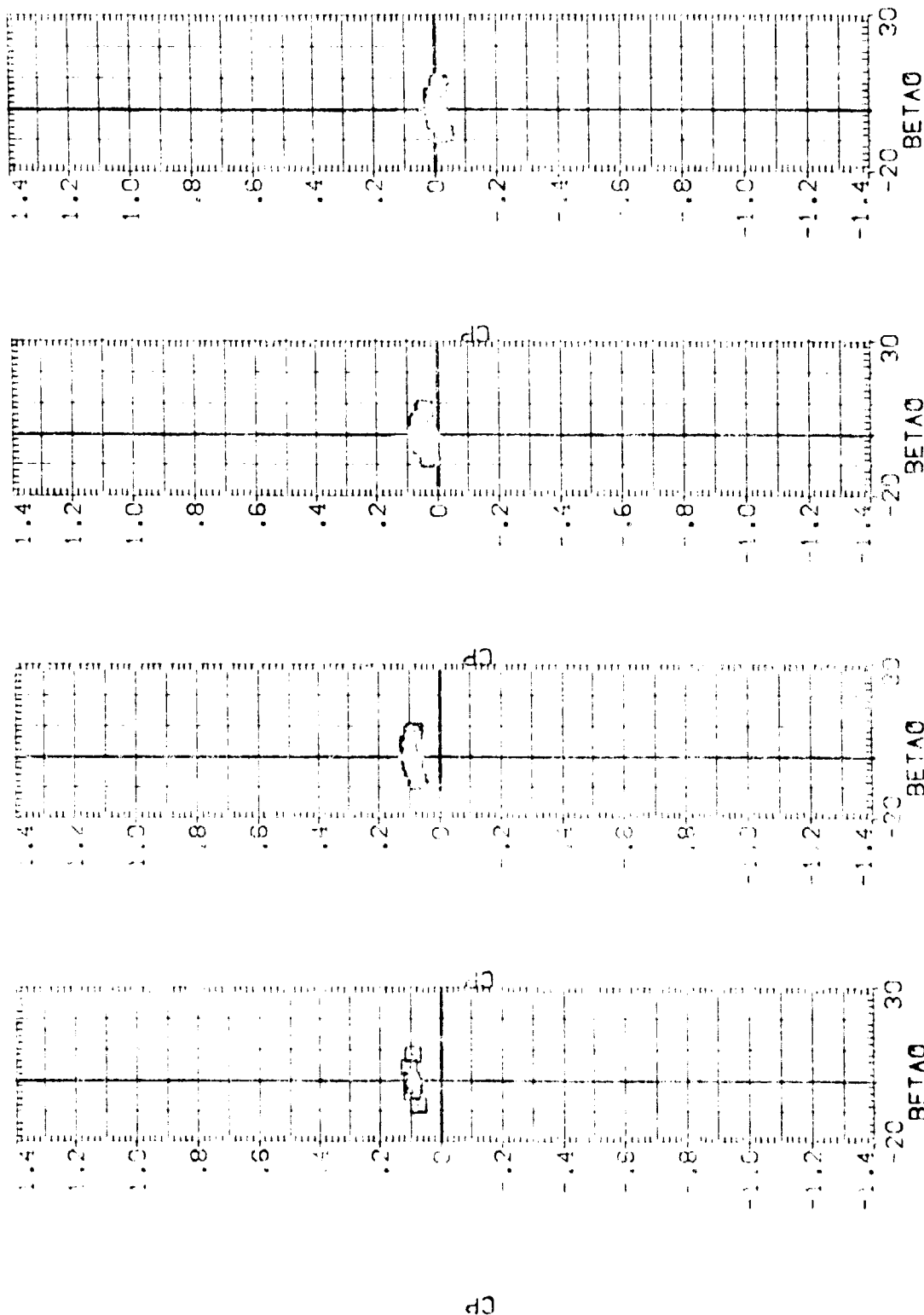


EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11-716 1A14 01+12+S12N25+AT10 ET ATTACH PTS. (RB1233)

PARAMETRIC VALUES  
MACH 1.250 ELEVON .000  
RUDDER .000 SPOBRK .000

SYMBOL PH1 X/L ALP-A0  
O 334.130 .916 4.300  
X 337.670 .921  
X 341.210 .927  
X 344.750 .932



EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11-716 1A14 01+112+SLN25+AT10 ET ATTACH PTS. (RB1233)

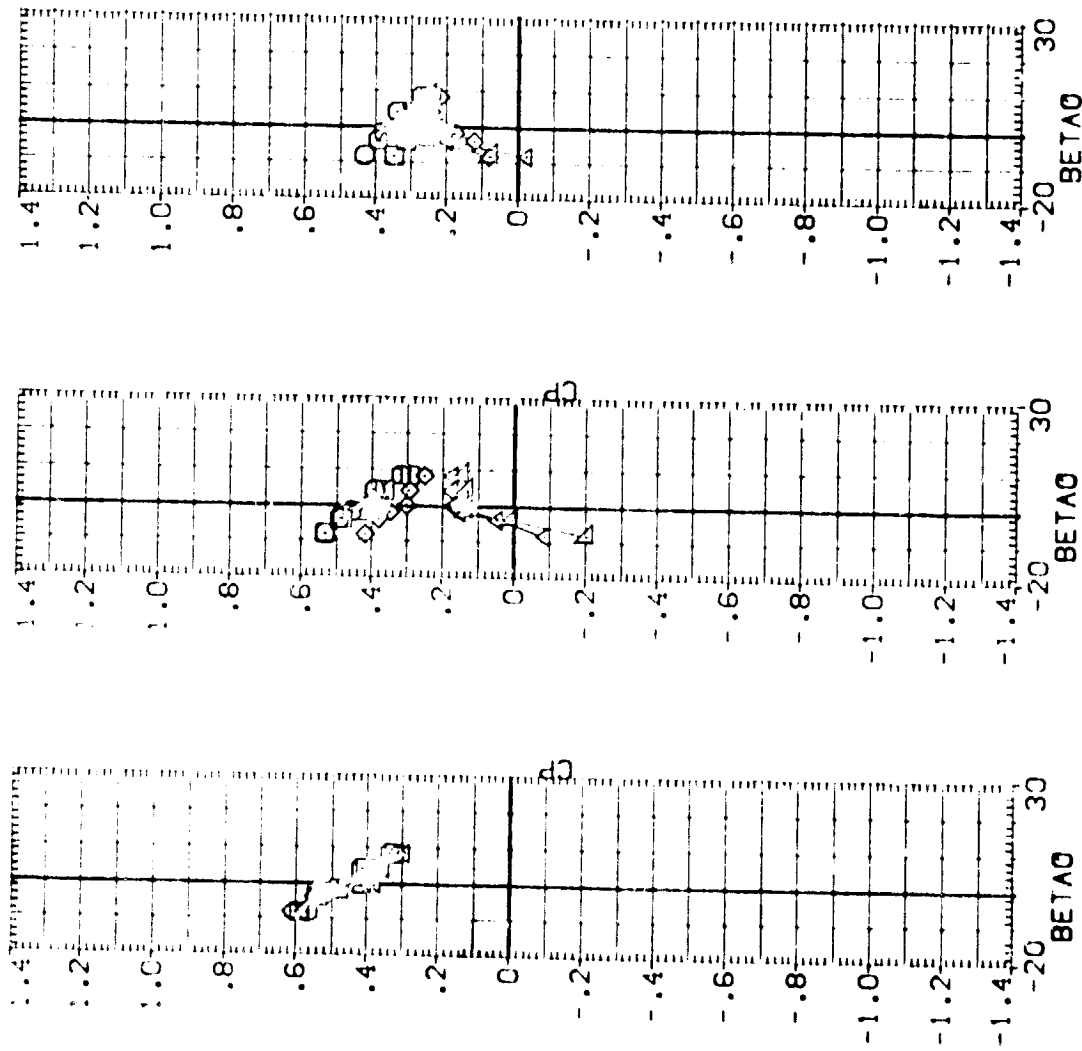
SR400

PHI  
182.840  
186.380  
189.920  
193.460  
197.000

K/LT  
.413  
.419  
.424

ALPHA  
4.300

PARAMETRIC VALUES  
MACH 1.250  
ELEVON .000  
RUDDER .000  
SP050M .000



EXTERNAL TANK ATTACH POINTS PRESSURES

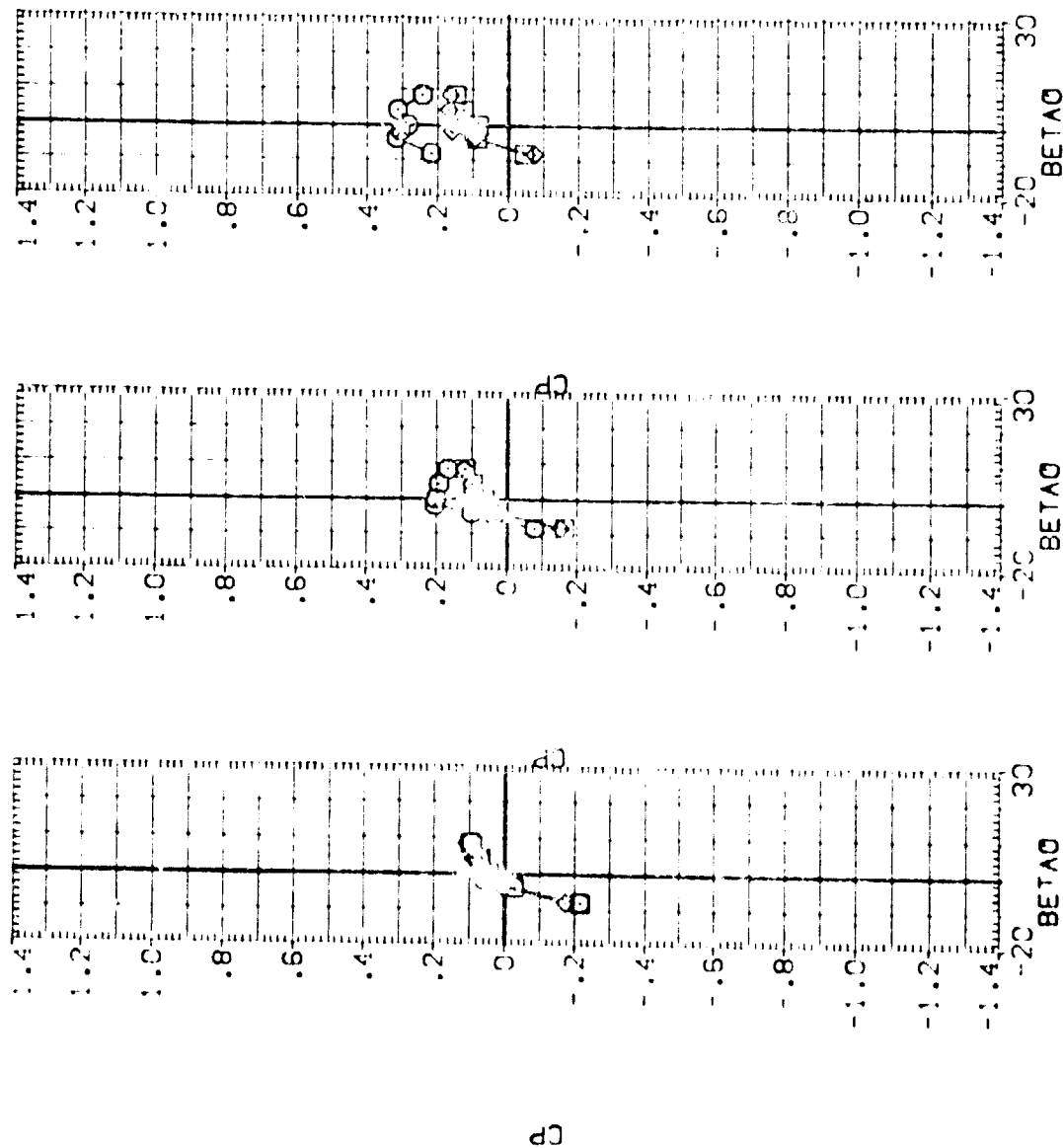
ARC11-716 1A14 01+T12+S12N25+AT10 ET ATTACH PTS. (RB1233)

PARAMETRIC VALUES  
 1.250 ELEVON  
 .000 SPEED  
 .000

MACH  
 RUDDER

ALPHA  
 4.300  
 .413  
 .419  
 .424

SYMBOL  
 200.540  
 204.080  
 207.620  
 222.840  
 276.390



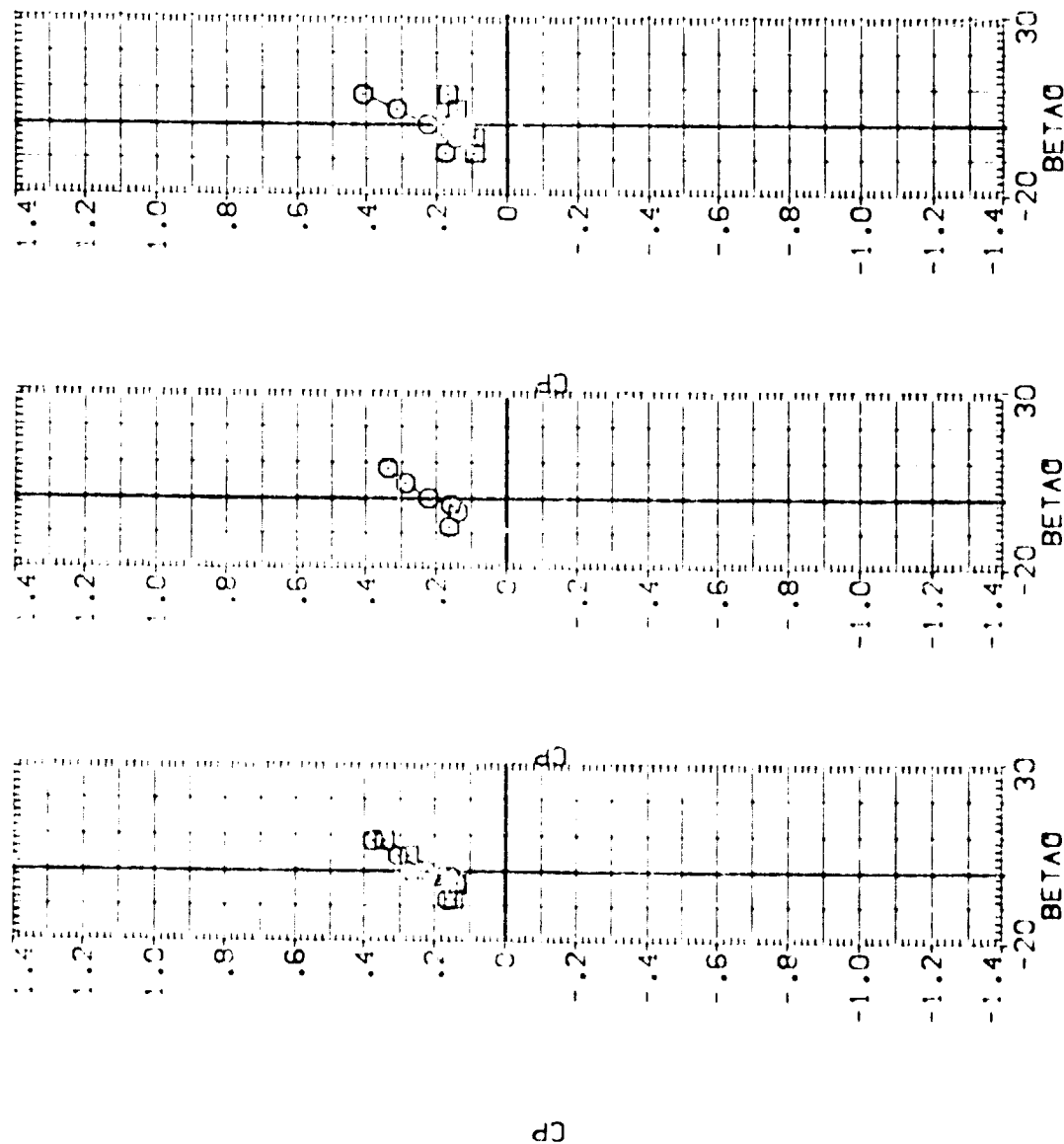
EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11-016 1A14 01+112+S12N25+AT10 ET ATTACH PTS.(R81233)

PARAMETRIC VALUES  
1.250 ELEVON  
.000 3PDBRK  
MACH  
RUDDER

SMALL  
229.920  
233.460  
234.040  
237.000  
237.580

ALT  
.828  
.834  
.839



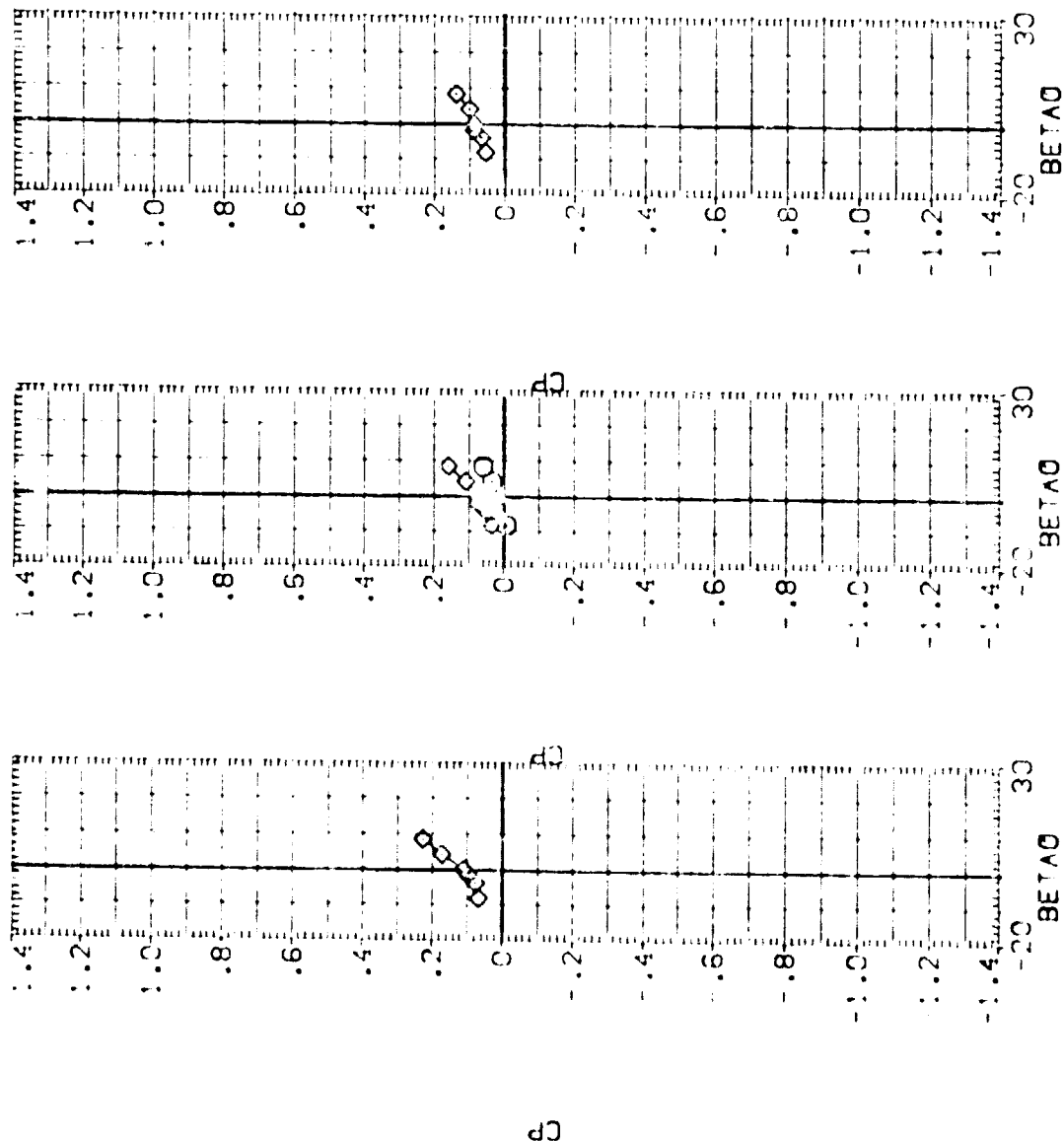
EXTERNAL TANK ATTACH POINTS PRESSURES



ARC11-716 1A14 01+112+S12N25+AT10 IF ATTACH PTS.(RB1233)

PARAMETRIC VALUES  
1.250 ELEVON  
.000 SPOON  
MACH  
RUDDER

SYMBOL P-1 X/LT ALPHA0  
240.540 .828 4.300  
241.120 .834  
244.080 .839  
244.660  
248.700



EXTERNAL TANK ATTACH POINTS PRESSURES

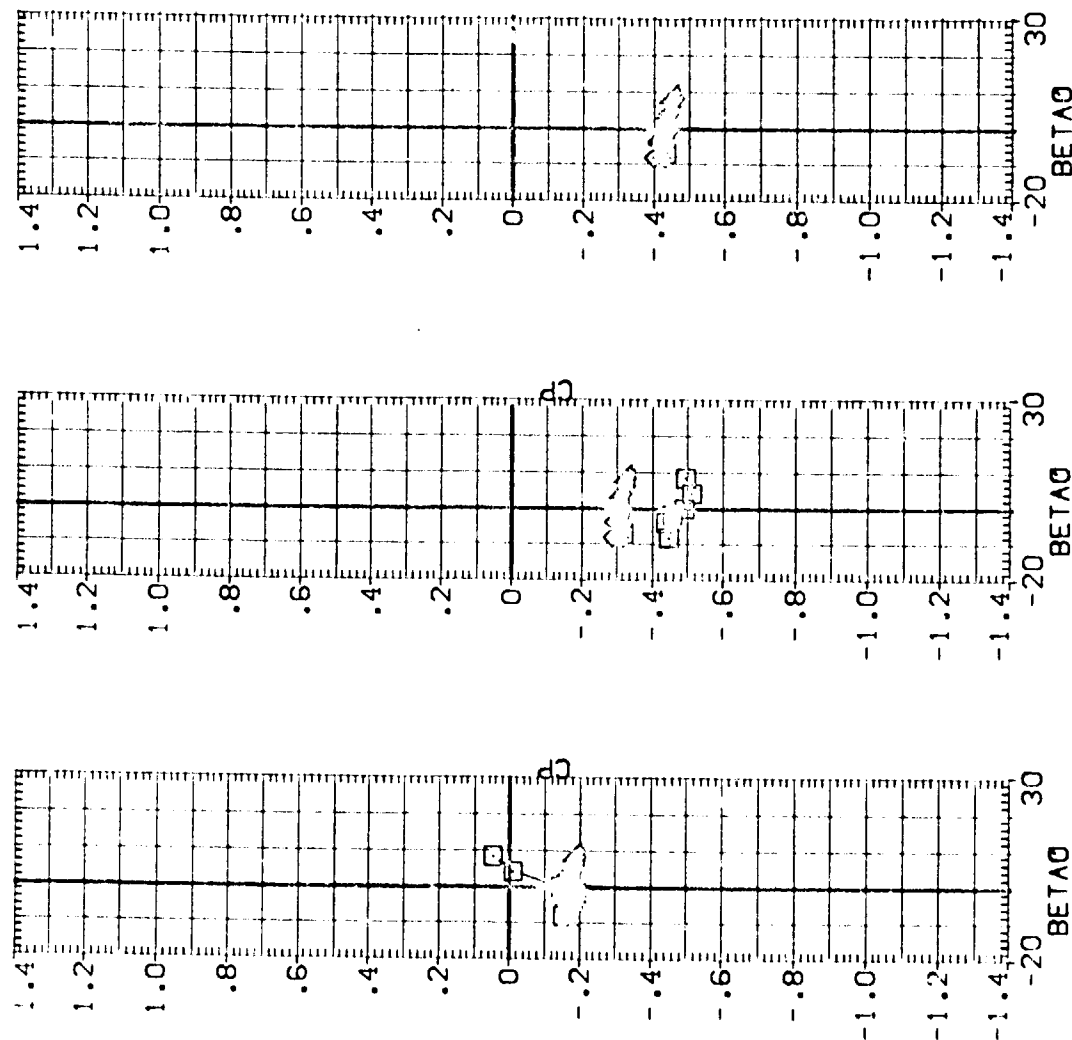
ARC11-716 IA14 01+T12+S12N25+AT10 ET ATTACH PTS.(RB1233)

SYMBOL

PHI X/LT ALPHA0  
 251.740 .938 4.300  
 255.280 .943  
 323.510 .948  
 327.050  
 330.500

PARAMETRIC VALUES  
 1.250 ELEVON  
 .000 SPOBRK  
 MACH  
 RUDDER

.000  
 .000

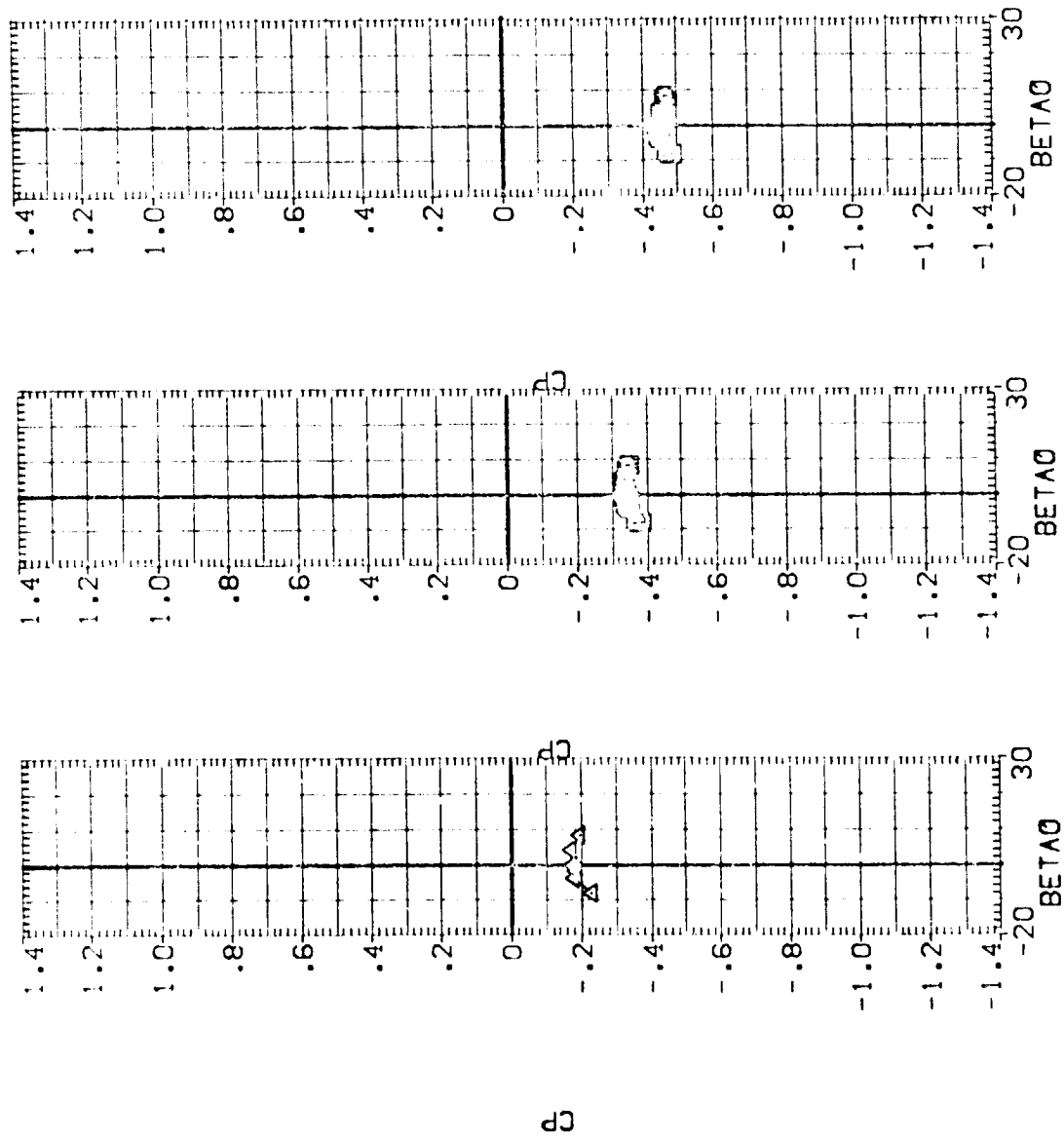


EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11-716 !A14 01+T12+S12N25+AT10 ET ATTACH PTS. (R01233)

PARAMETRIC VALUES  
 MACH 1.250  
 ELEVON .000  
 RUDDER .000

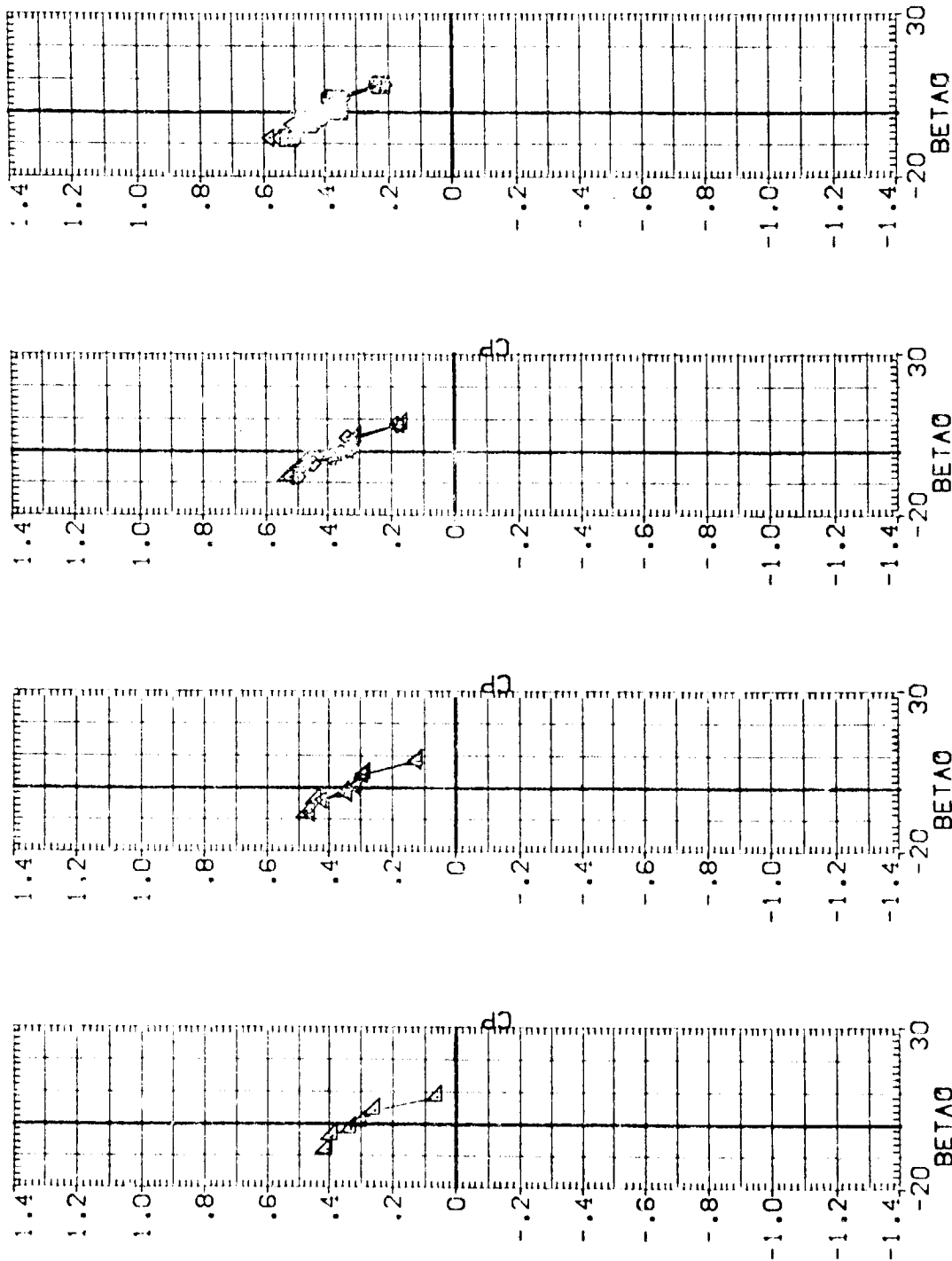
SYMBOL PHI X/LT ALPHA0  
 334.130 .939 4.300  
 337.670 .943  
 341.210 .948  
 344.750



EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11-716 1A14 01+12+S12N25+AT10 ET ATTACH PTS.(RB1233)

SYMBOL	PHI	X/LT	ALPHA	PARAMETRIC VALUES		
				MACH	ELEVON	
○	182.840	.391	7.910	RUDDER	.000	.000
□	186.380	.387				
◇	189.920	.402				
△	193.460	.438				
4	197.000					



EXTERNAL TANK ATTACH POINTS PRESSURES

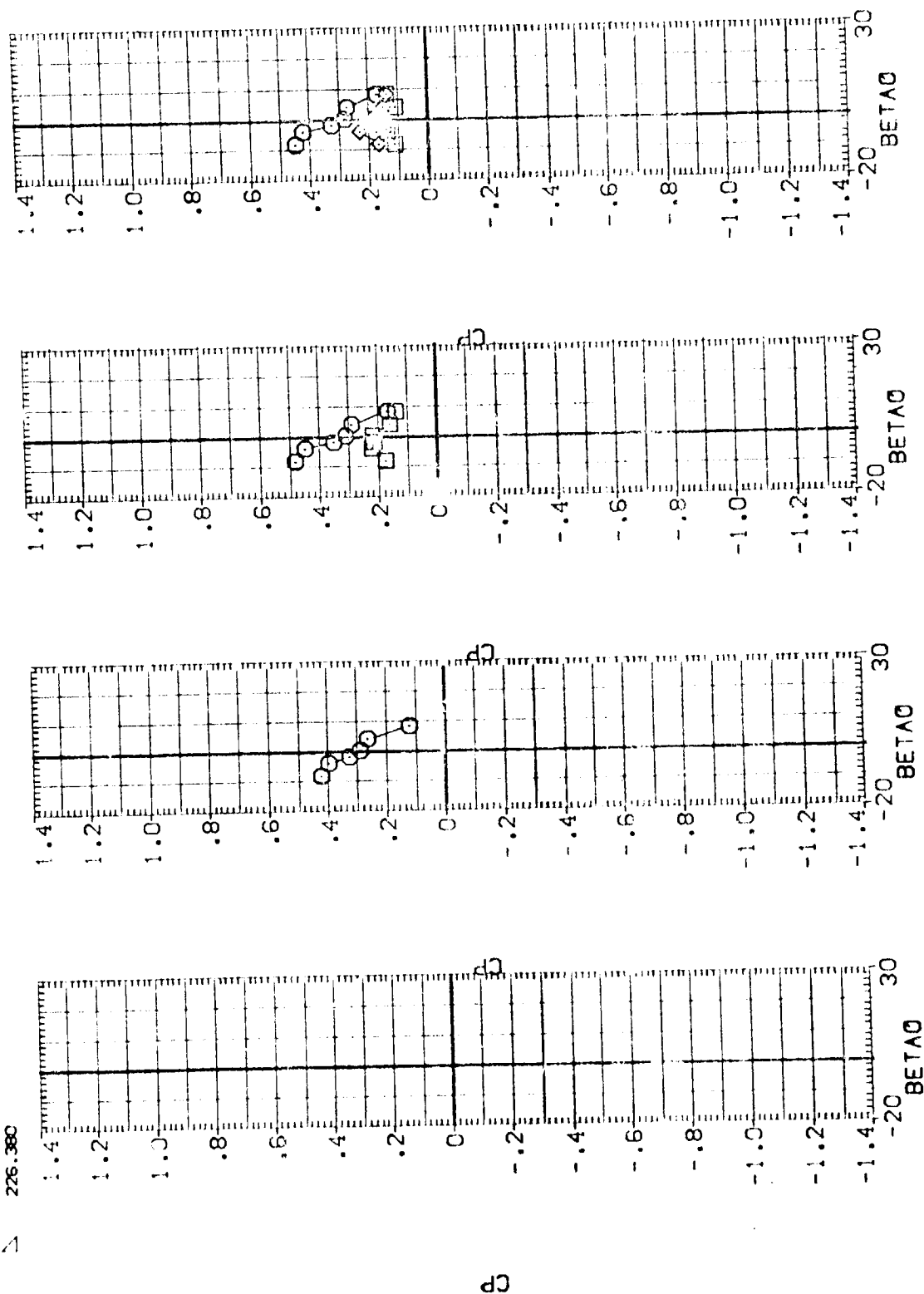
ARC11-716 IA14 01+T12+S12N25+AT10 ET ATTACH PTS. (RB1233)

SYMBOL  
011044

PHI	X/LT	ALPHA
200.540	.391	7.910
204.080	.397	
207.620	.402	
222.840	.408	
226.380		

PARAMETRIC VALUES  
1.250 ELEVON  
.000 SPOBRK

MACH  
RUDDER



EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 ET ATTACH PTS. (RB1233)

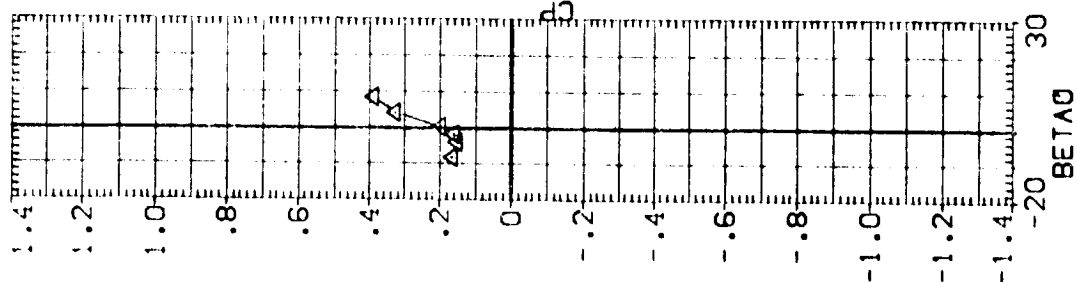
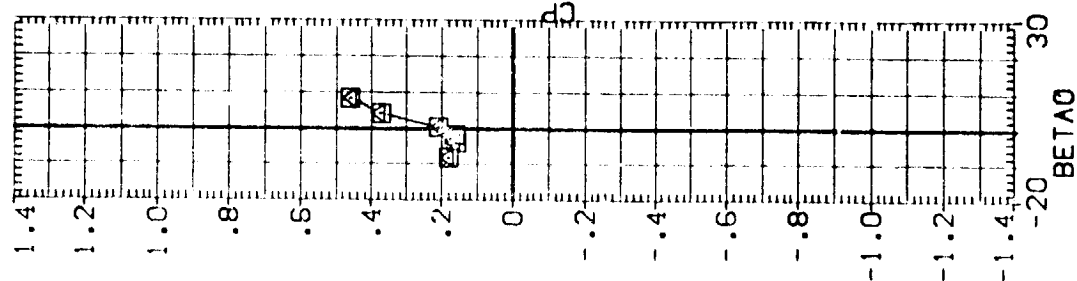
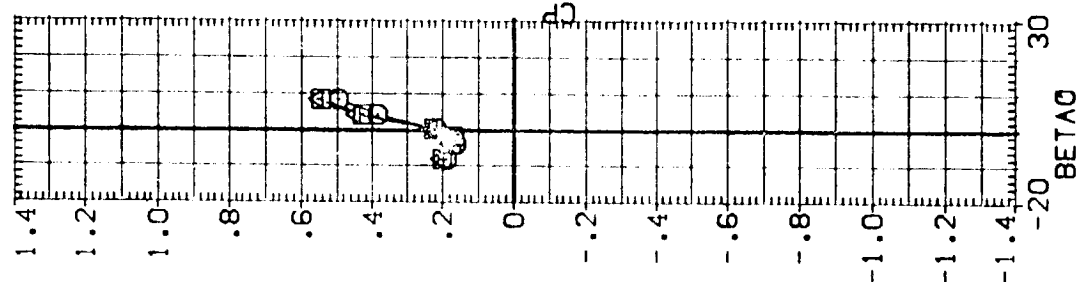
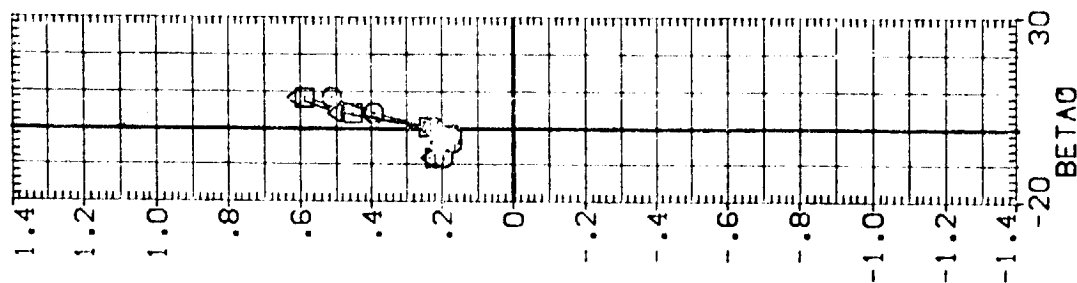
PARAMETRIC VALUES  
1.250 ELEVON .000  
.000 SPOBRK .000

MACH  
RUDDER

ALPHAQ  
7.910

X/LT  
.807  
.812  
.818  
.823

PHI  
229.920  
233.160  
234.040  
237.000  
237.580



EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11-716 IA14 01+T12+S12N25+A110 ET ATTACH PTS.(RB1233)

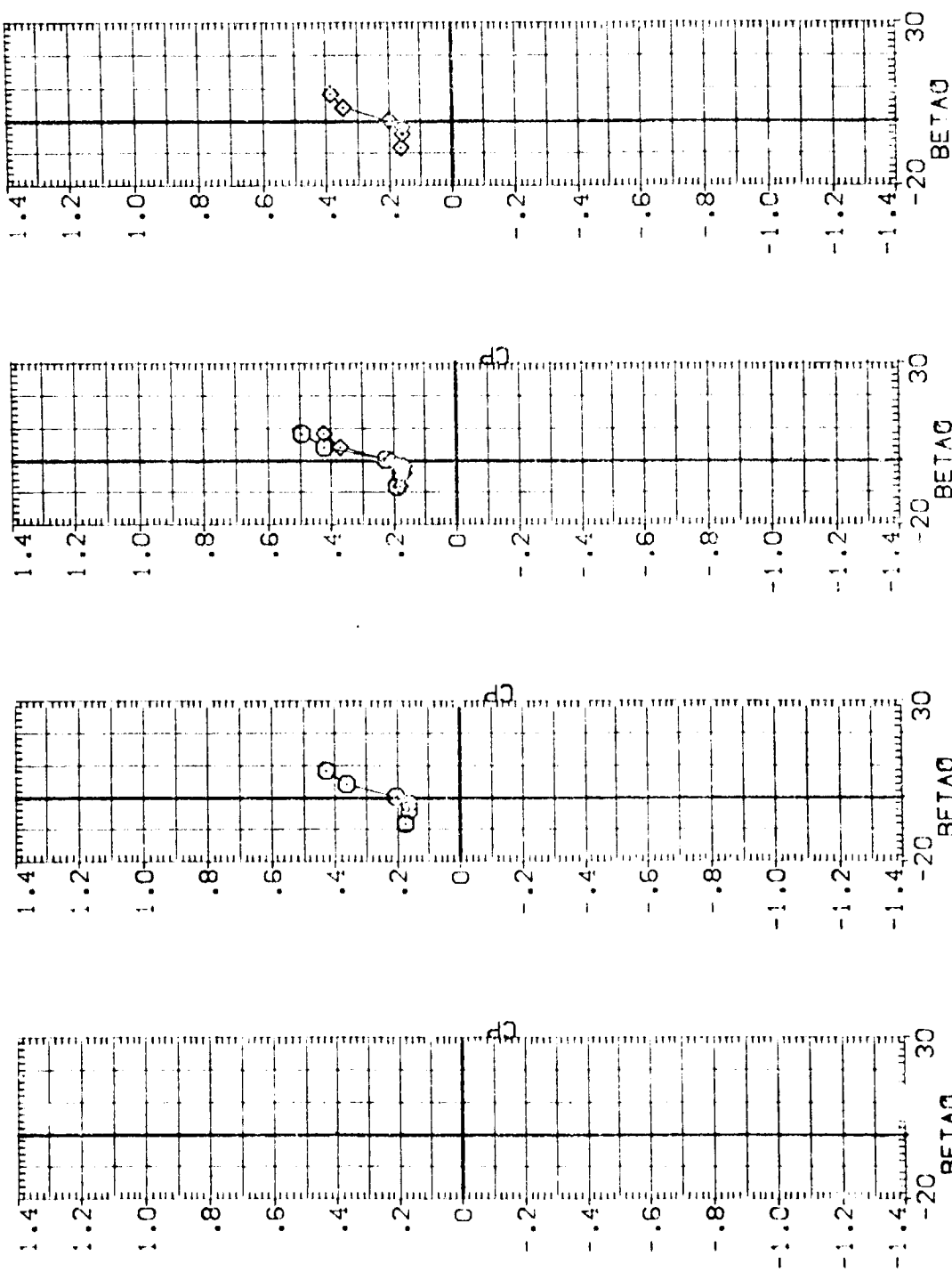
PARAMETRIC VALUES  
1.250 ELEVON .000  
.000 SPDBRK .000

MACH  
RUDDER

ALPHA  
7.910

X/LT  
.807  
.812  
.818  
.823  
248.200

SYMBOL  
O  
◇  
△



EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 ET ATTACH PTS. (RB1233)

PARAMETRIC VALUES  
1.250 ELEVON .000  
.000 SPOSRK .000

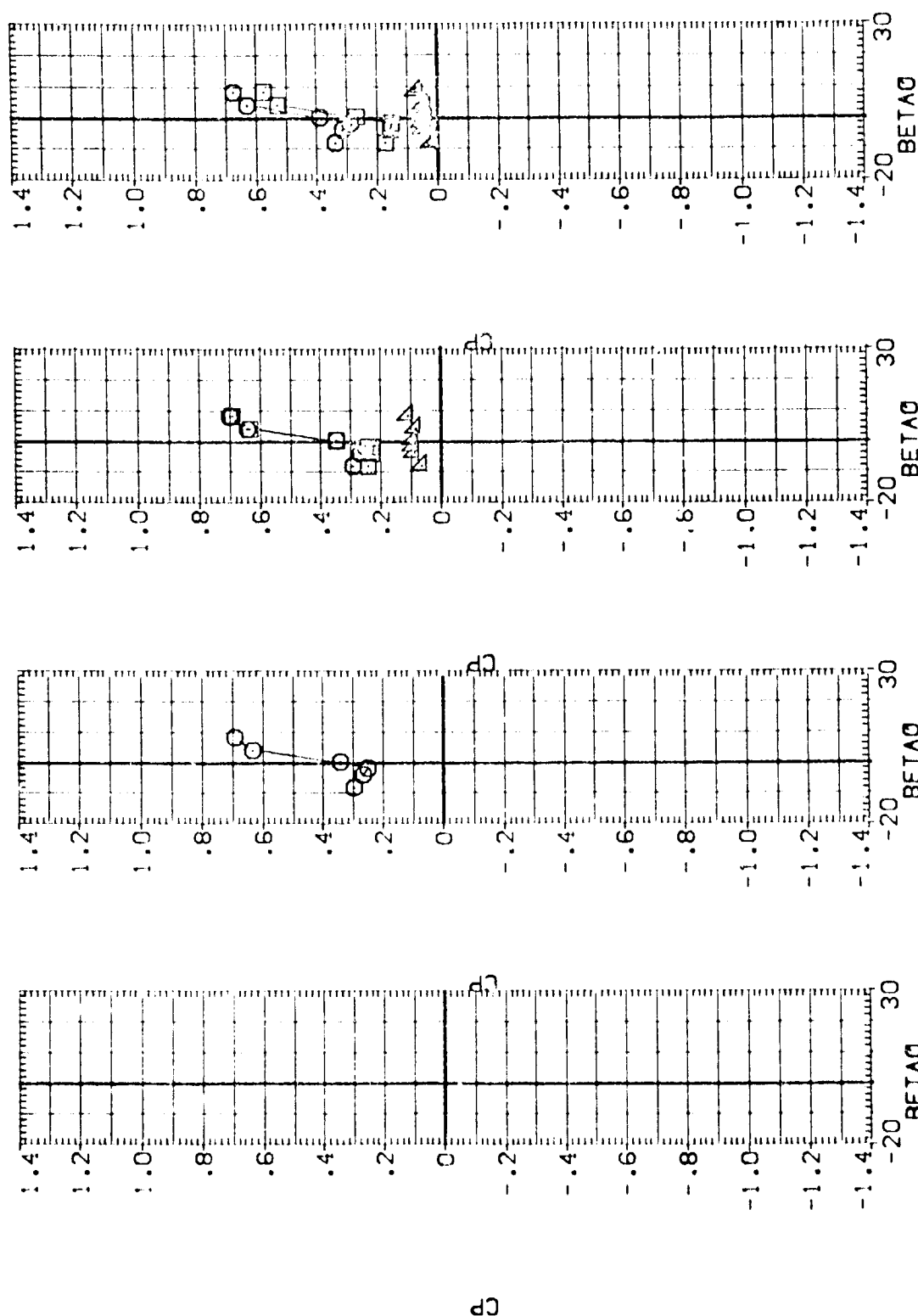
MACH  
RUDDER

ALPHA0  
7.910

X/LT  
.916  
.921  
.927  
.932

PHI  
251.740  
255.280  
323.510  
327.050  
330.590

SYMBOL  
O  
□  
△  
▽



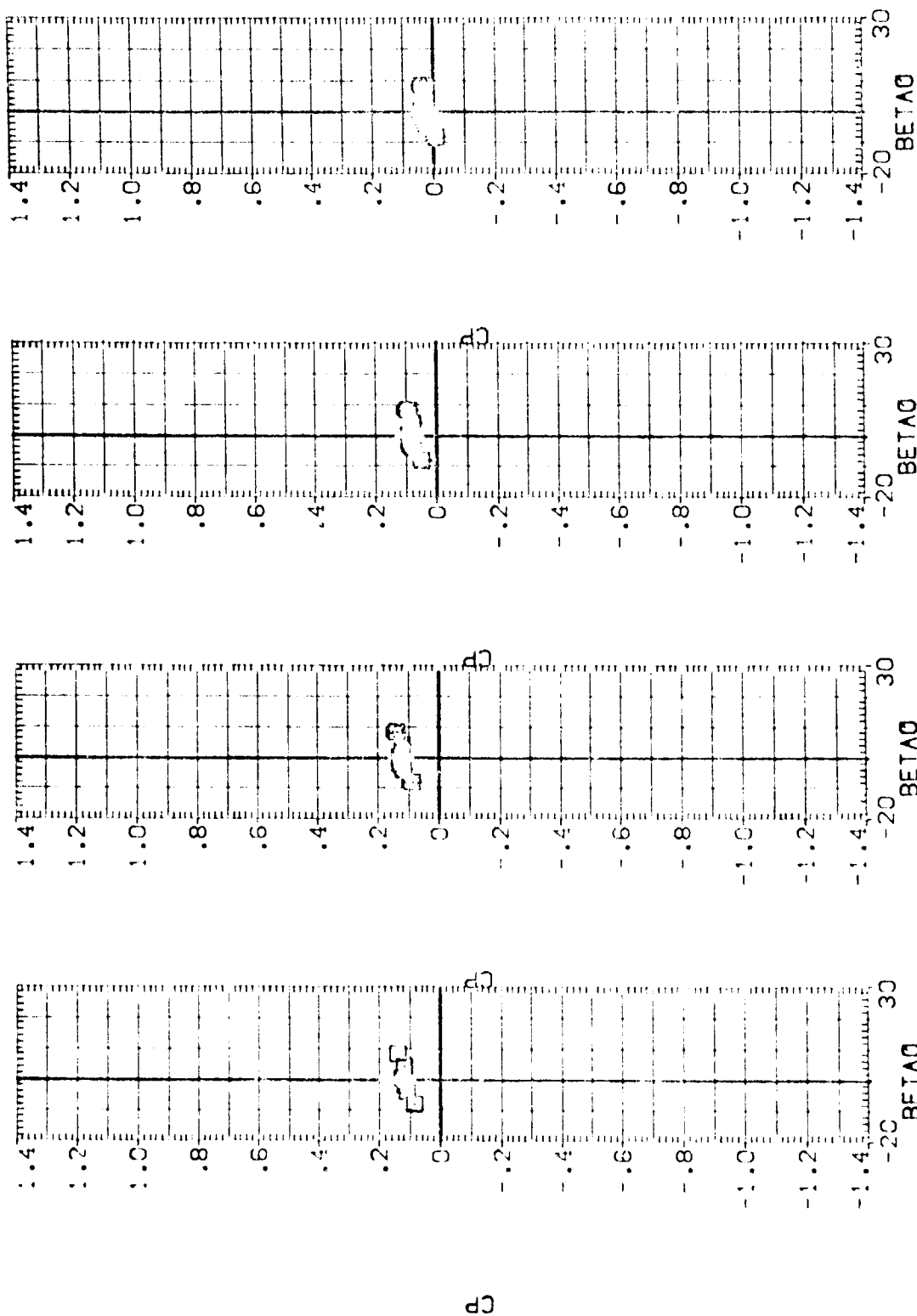
EXTERNAL TANK ATTACH POINTS PRESSURES



ARC1:-716 1A14 C1+T12+S12N25+AT10 ET ATTACH PTS.(RB1233)

SYMBOL	PHI	X/LT	ALPHA0	PARAMETRIC VALUES		
				1.250	ELEVON	.000
○	334.130	.916	7.910	.000	SPDRK	.000
◇	337.670	.921				
△	341.210	.927				
	344.750	.932				

MACH  
RCDER



EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11-716 1A14 01+112+S12N25+AT10 ET ATTACH PTS. (RB1233)

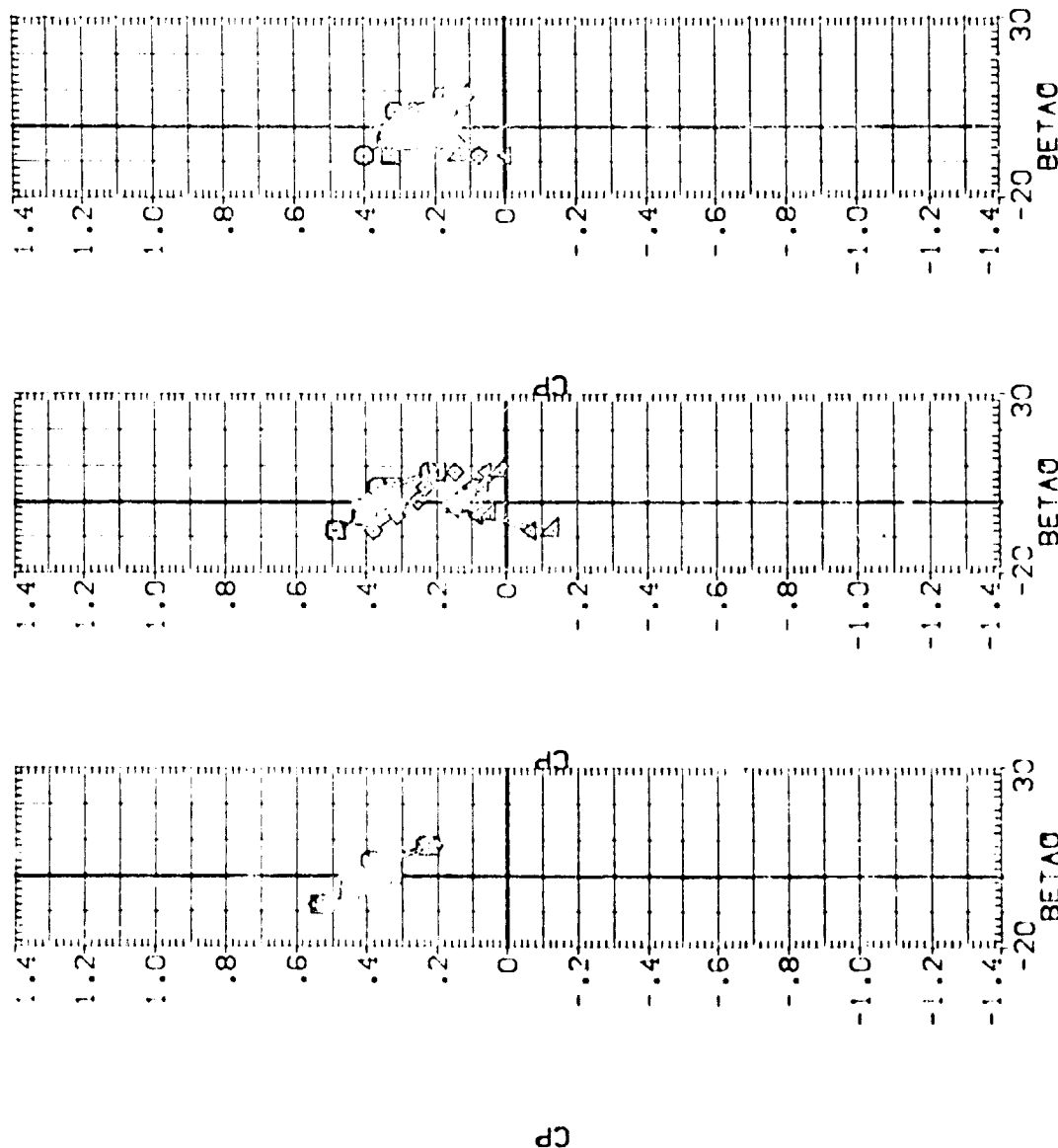
PARAMETRIC VALUES  
 1.250 ELEVON  
 .000 SP033K  
 .000

MACH  
 0.000

ALPHA0  
 7.910

X/LT  
 .413  
 .419  
 .424  
 .429  
 .434

SYMBOL  
 182.840  
 186.380  
 189.920  
 193.460  
 197.000



EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 ET ATTACH PTS. (R81233)

PARAMETRIC VALUES  
1.250 ELEVON  
.000 SPOSRK  
.000

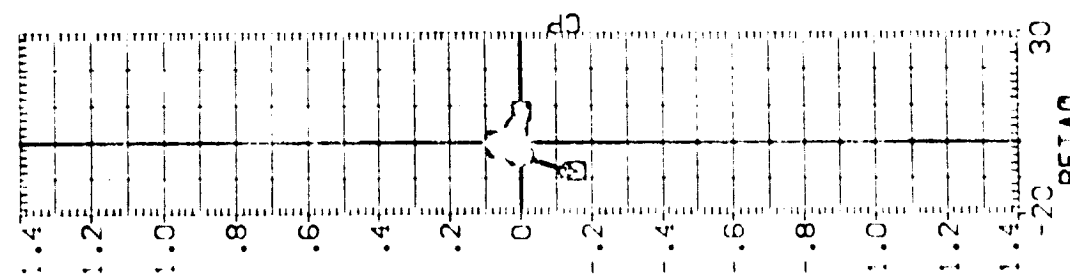
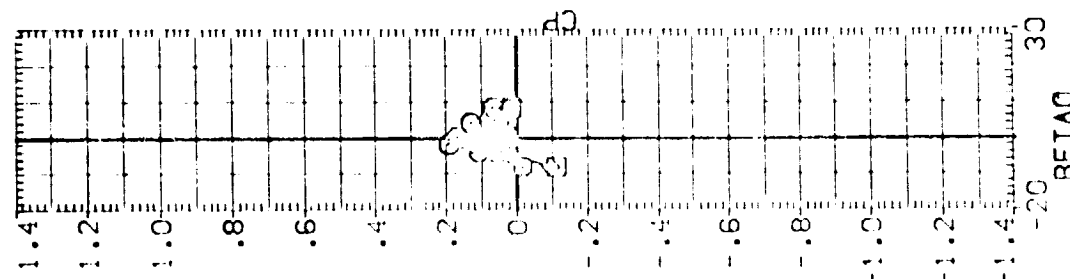
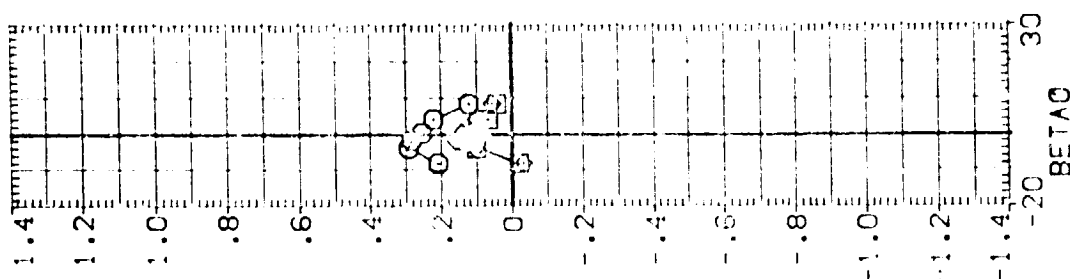
MACH  
RUDDER

PHI  
ALPHA0

X/LT  
.413  
.419  
.424

200.540  
204.080  
207.620  
222.840  
226.380

SYMBOL  
O ( ) 4.1



EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11-716 1A14 01+112+S:2N25+AT10 E ATTACH PTS. (RB1233)

PARAMETRIC VALUES  
1.250 ELEVEN  
.000 SPEED  
.000

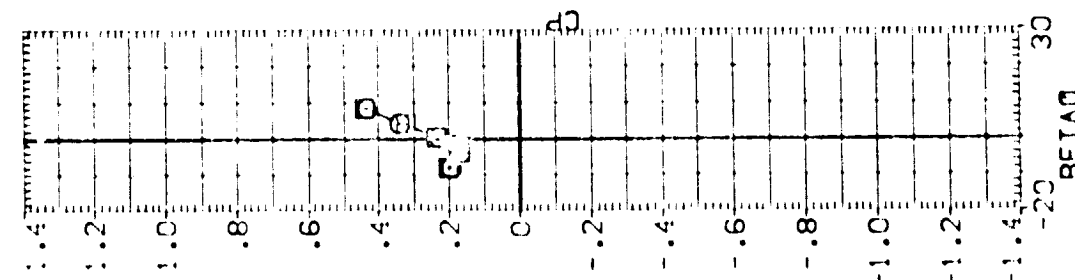
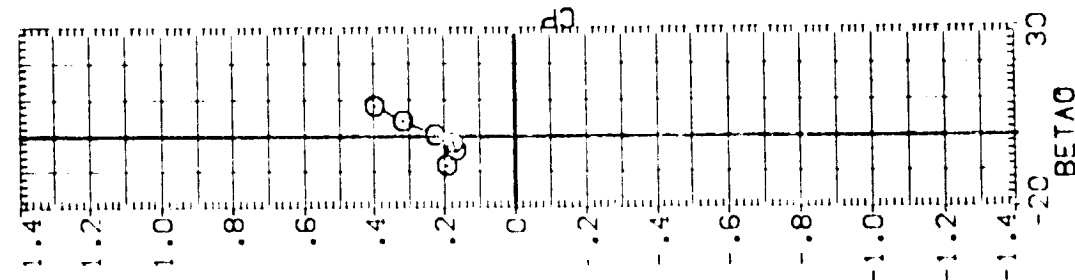
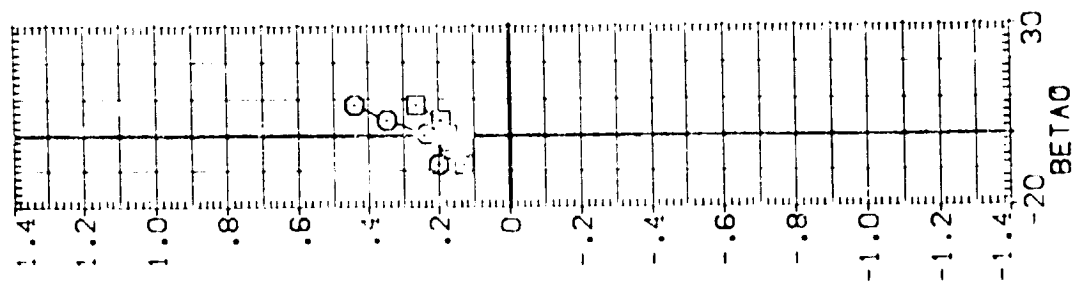
MACH  
RUGER

ALPHA0  
7.910

X/LT  
.828  
.834  
.839

PAI  
229.920  
233.460  
234.040  
237.000  
237.500

SYMBOL  
O  
□  
◇  
△



EXTERNAL TANK ATTACH POINTS PRESSURES

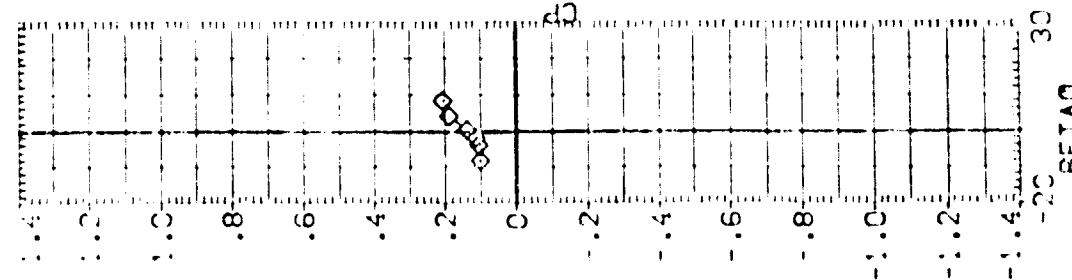
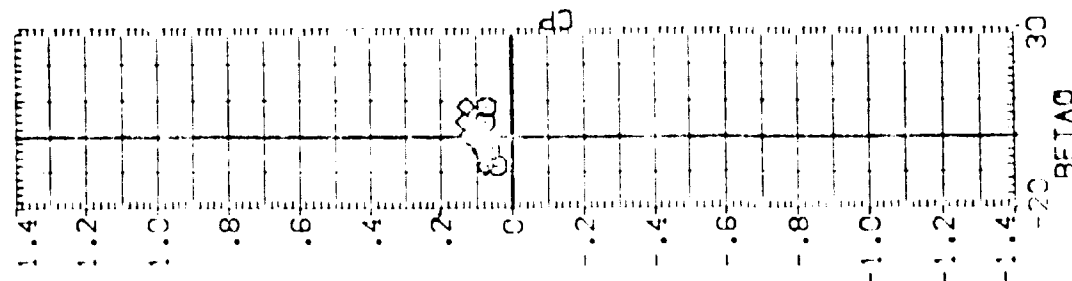
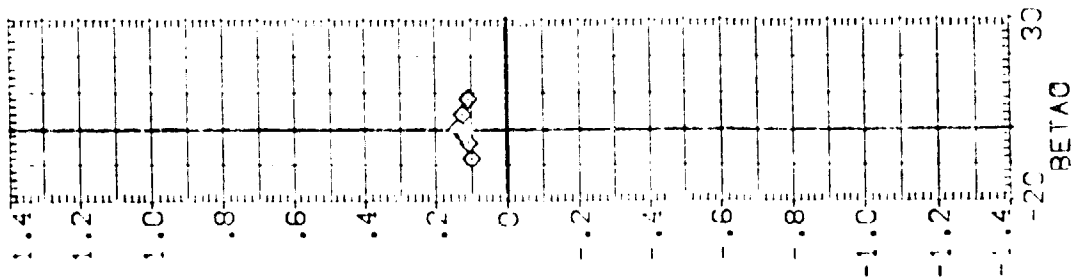
ARC11-716 1A14 01+T12+S12N25+AT10 ET ATTACH PTS. (RB1233)

PARAMETRIC VALUES  
1.250 ELEVON  
.000 SPOILER

MACH  
RUCER

PHI X/L<sup>2</sup> ALPHA  
240.540 .928 7.910  
241.120 .934  
244.000 .839  
244.000  
248.200

S.7801  
0 0 0 0 0



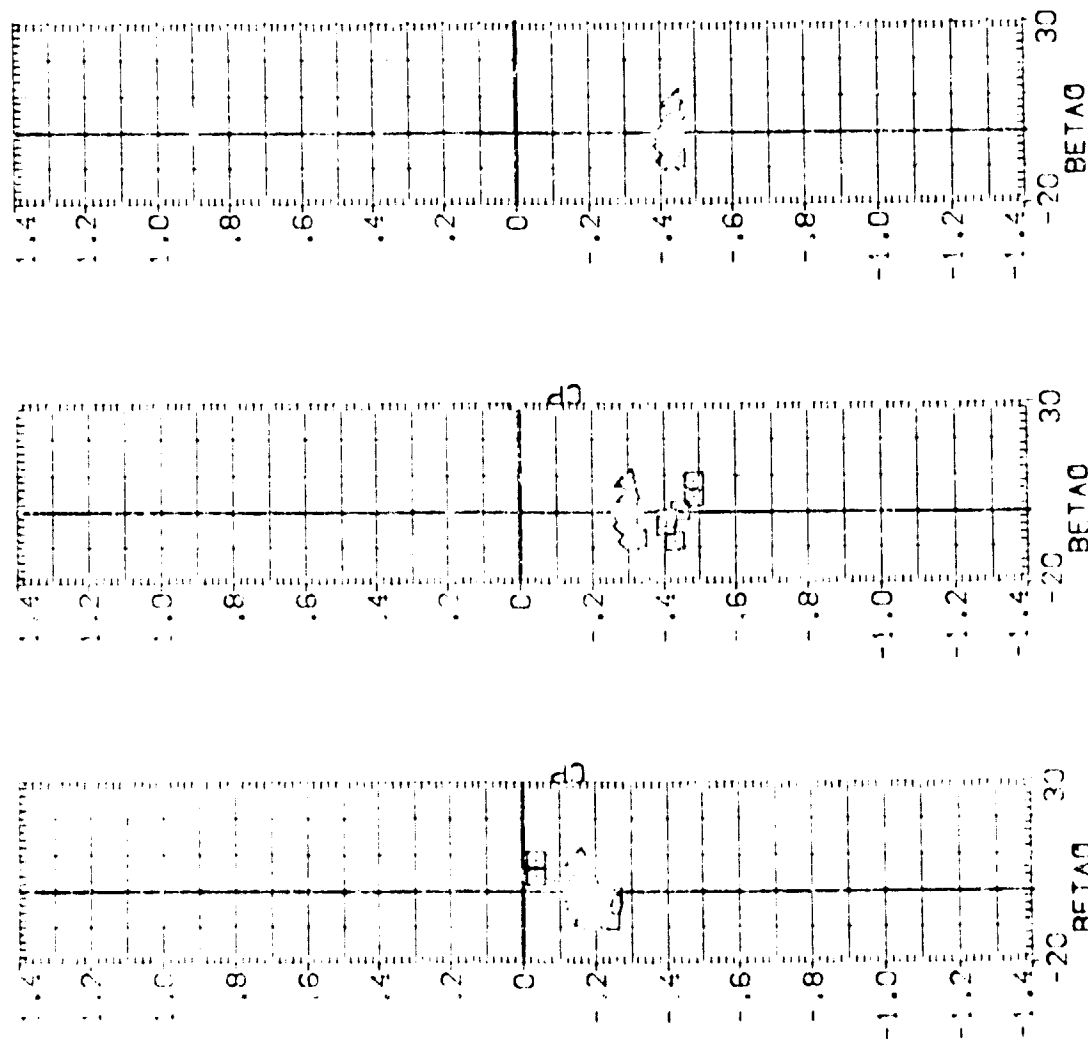
EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11 215 1A14 017112+S:2N25+A110 ET ATTACH PTS. (RB:233)

PARAMETRIC VALUES  
 1.2750 ELEVON  
 .0000 SPEEDON  
 .0000

MACH  
 RUDDER

PARAMETRIC VALUES  
 1.2750 ELEVON  
 .0000 SPEEDON  
 .0000



EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11-715 IAI4 01+112+S12N25+AT10 01 ATTACH PTS. (RB1233)

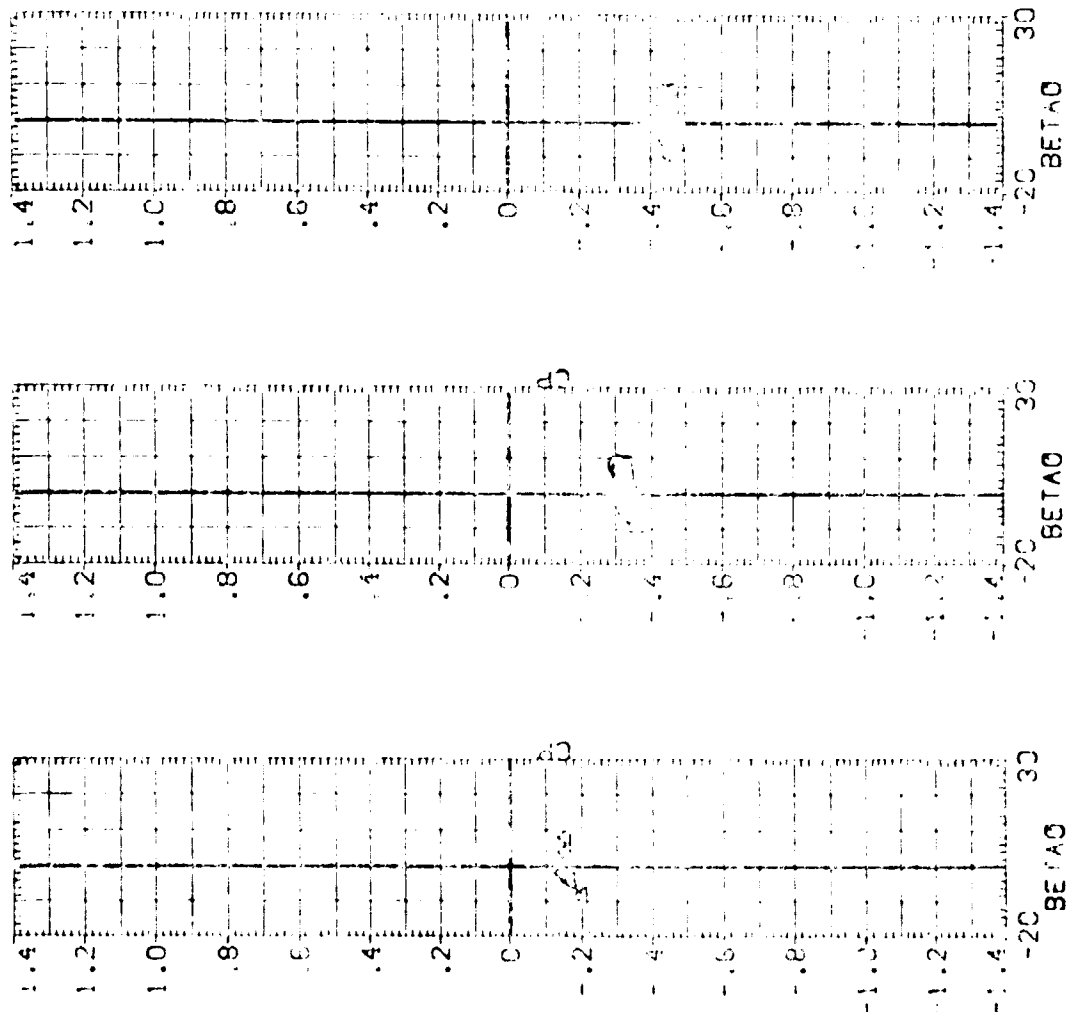
SYMBOL

□ ◇ △

RAI XLT ALPMS  
334.130 .938 7.910  
337.670 .943  
341.210 .348  
344.750

PARAMETRIC VALUES

1.250 ELEVEN  
.000 SPDRXK  
MAC-  
RUDDER



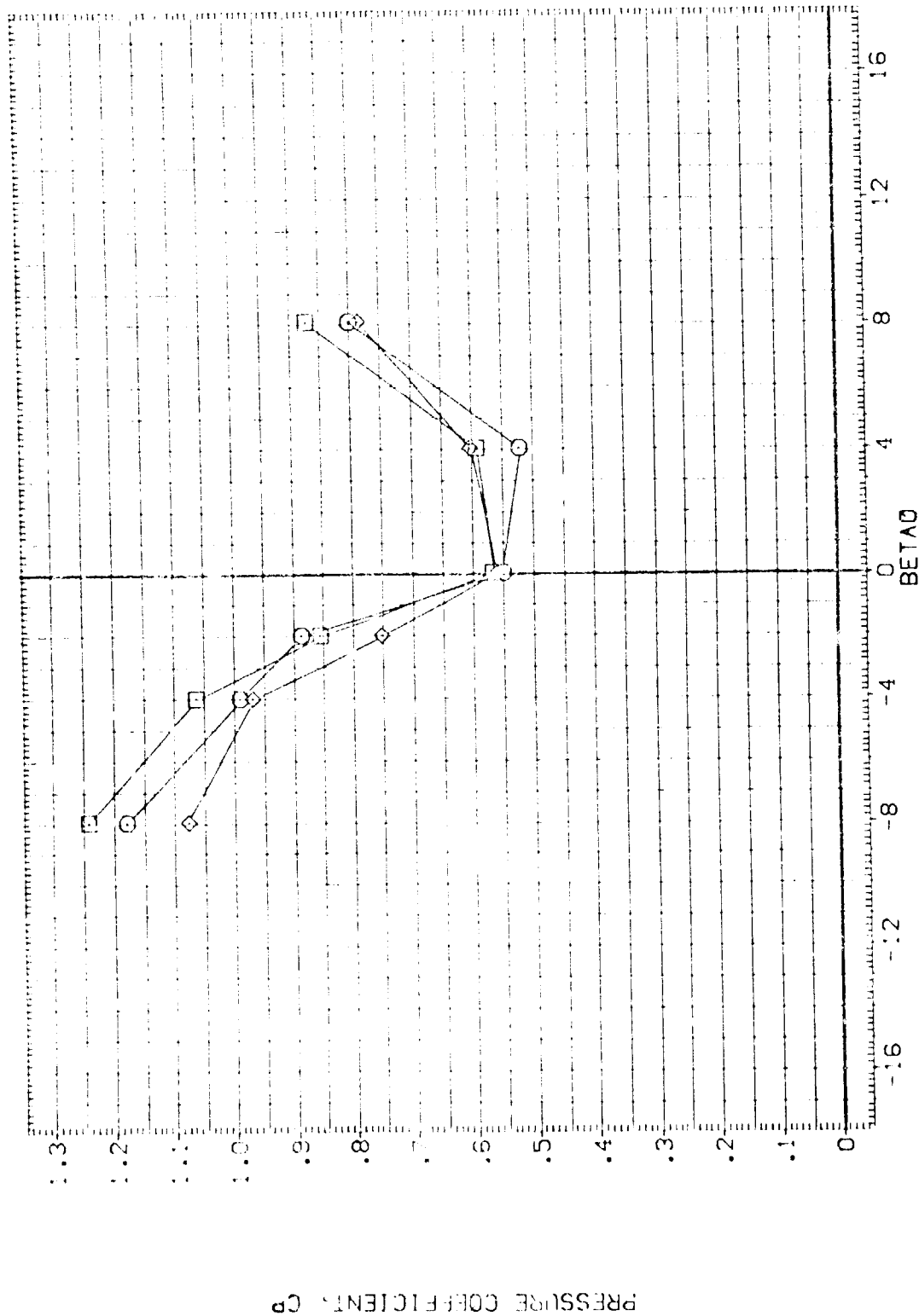
EXTERNAL TANK ATTACH POINTS PRESSURES

ARC11-716 1A14 01+112+S12N25+A110 ET BASE RAKE (RB1333)

PARAMETRIC VALUES  
 MACH 1.250 ELEVON .000  
 RUDDER .000

ALPHA 0  
 -3.220

SYMBOL TAP NO PHI  
 O 790.000 180.000  
 X 786.000  
 V 788.000  
 V 787.000

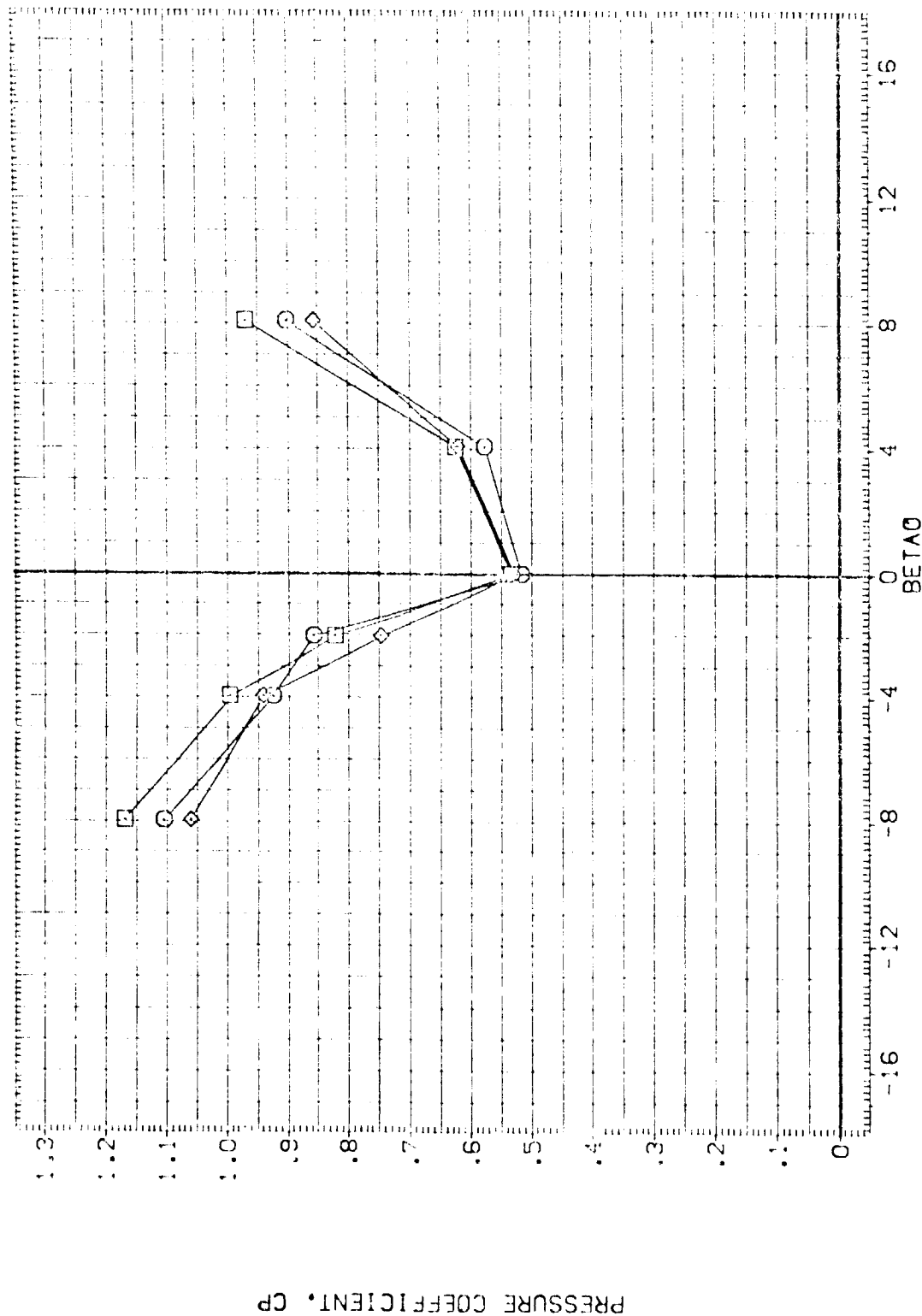


EXTERNAL TANK BASE RAKE PRESSURES



ARC11-716 :A14 C:112+S12N25+AT10 ET BASE RAKE (RB1333)

SYMBOL	TAP NO	PHI	ALPHA	PARAMETRIC VALUES
○	790.000	180.000	-4.200	MACH 1.250 ELEVON .000
◇	793.000			RUDER .000 SPOILER .000
△	797.000			



EXTERNAL TANK BASE RAKE PRESSURES

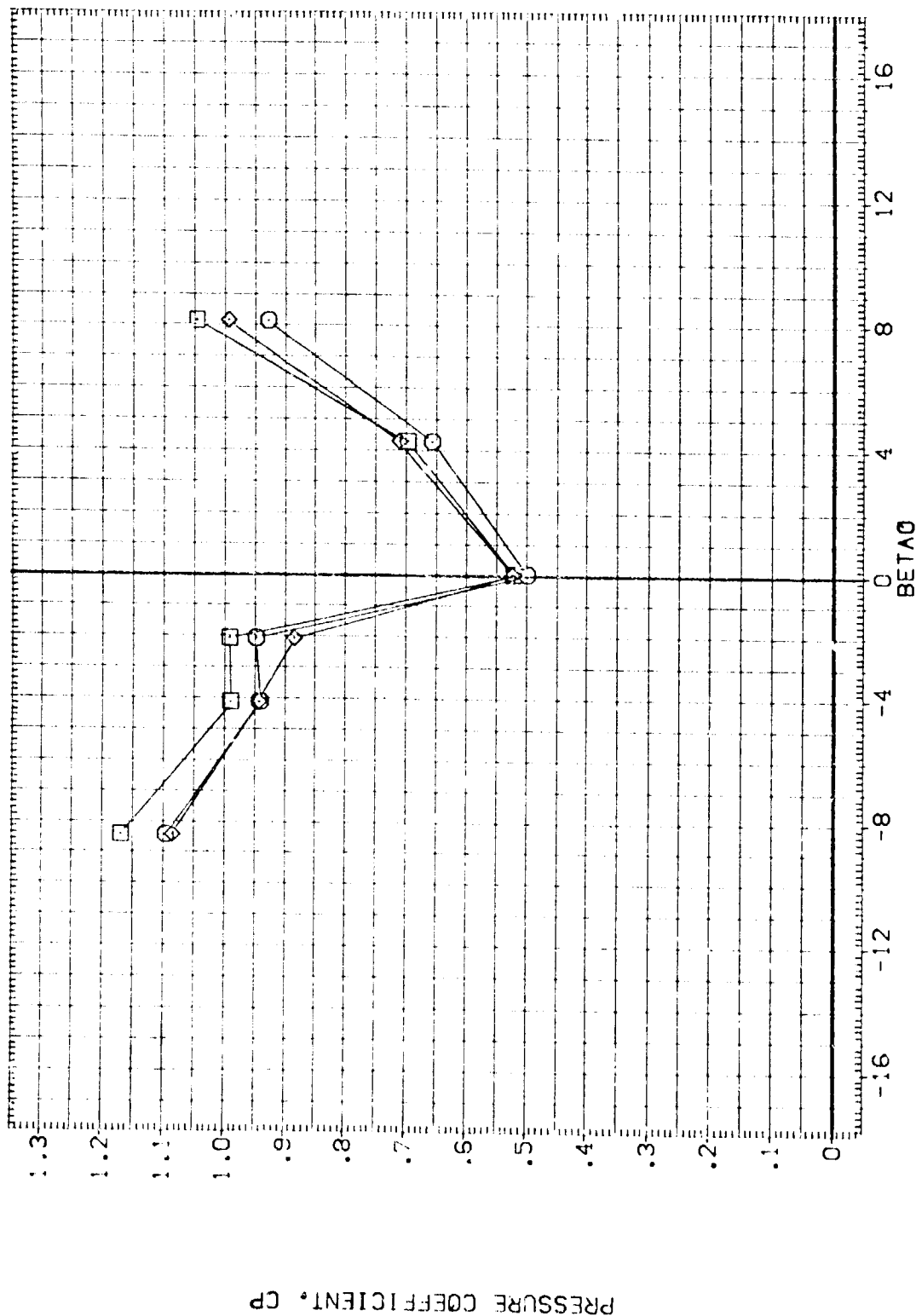
ARC11-716 1A14 01+T12+S12N25+AT10 ET BASE RAKE (RB1333J)

SYMBOL  
 ○ □ ◇

TAP NO PHI ALPHA  
 790.000 180.000 -.750  
 789.000  
 788.000  
 787.000

PARAMETRIC VALUES  
 1.250 ELEVON .000  
 .000 SPOBRK .000

MACH  
 RUCCER



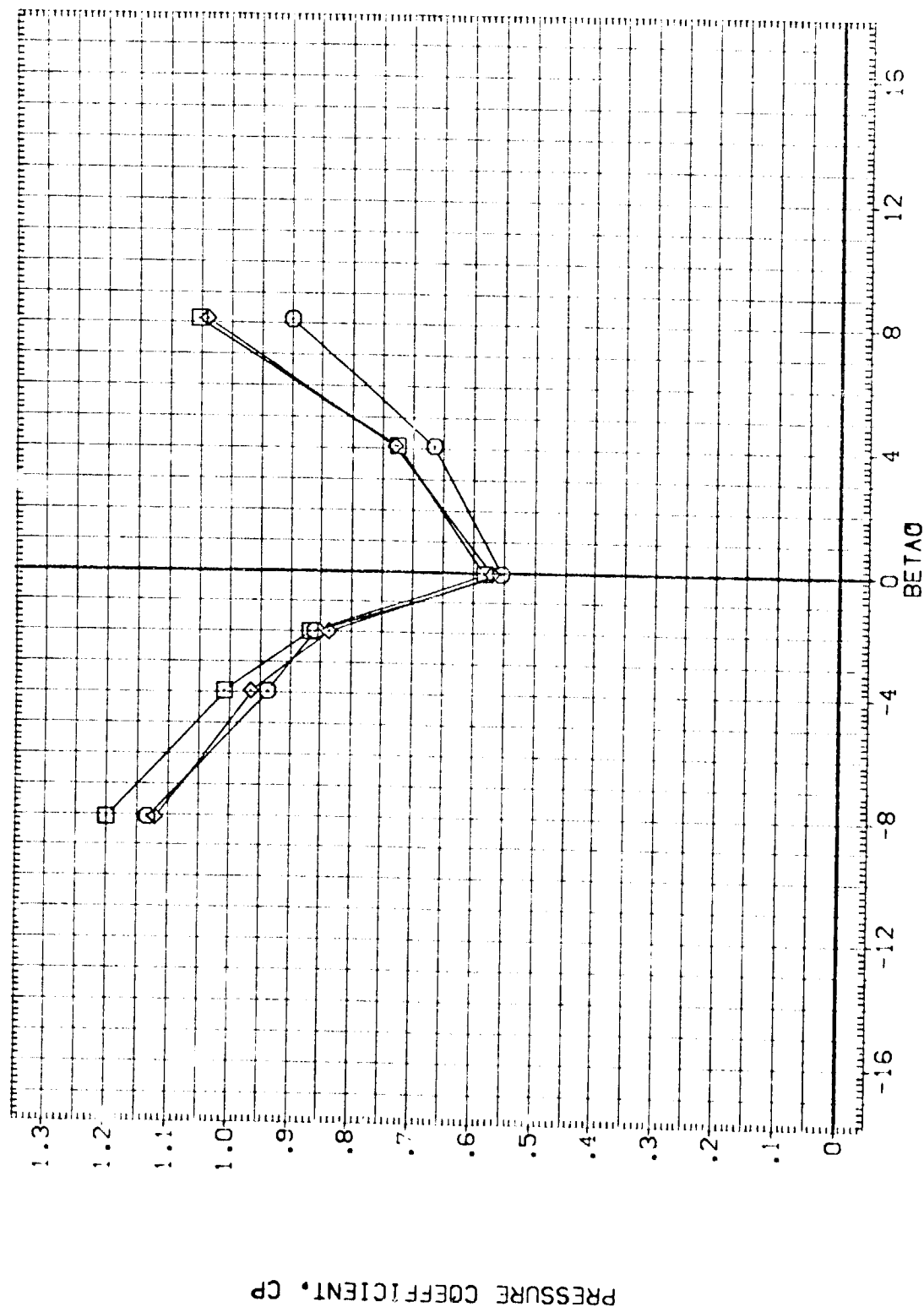
EXTERNAL TANK BASE RAKE PRESSURES

ARC11-716 IA14 01+T12+S12N25+A110 ET BASE RAKE (RB1333)

SYMBOL  
 TAP NO  
 790.000  
 789.000  
 788.000  
 787.000

PHI  
 180.000  
 ALPHA0  
 4.300

PARAMETRIC VALUES  
 MACH 1.250  
 RUDDER .000  
 ELEVON .000  
 SPDRK .000



EXTERNAL TANK BASE RAKE PRESSURES

ARC11-716 1A14 01+T12+S12N25+AT10 ET BASE RAKE (RB1333)

PARAMETRIC VALUES  
 1.250 ELEVON  
 .000 SPOBRK  
 .000

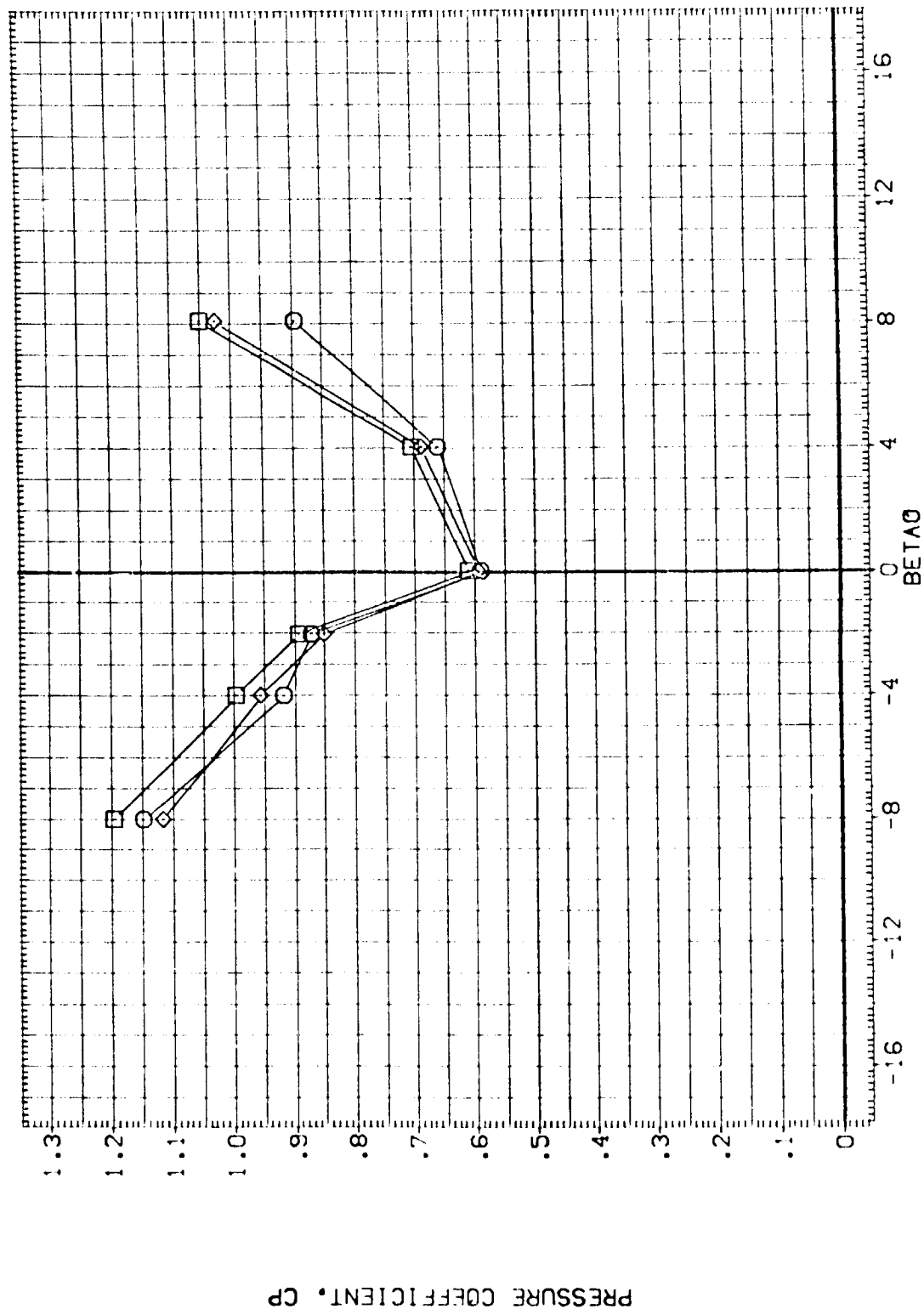
MACH  
 RUDDER

ALPHA  
 7.910

PHI  
 180.000

TAP NO  
 790.000  
 789.000  
 788.000  
 787.000

SYMBOL  
 □  
 ◇  
 ○



EXTERNAL TANK BASE RAKE PRESSURES